

**Administrative Record Index
for the
INDUSTRIAL POLLUTION CONTROL Removal Site**

2.0 REMOVAL RESPONSE

2.1 Correspondence

1. Letter from Betty Ruth Fox, Mississippi Department of Environmental Quality (MSDEQ), to Mike Norman, EPA Region IV (with attachments two and seven, the remainder of the attachments are included as attachments to item 1 in 2.8 REMOVAL RESPONSE - Removal Response Reports). By this letter MSDEQ transmitted to EPA Region IV, information concerning the Industrial Pollution Control Site, Jackson, Hinds County, Mississippi. (November 04, 1998)

2.2 Sampling and Analysis Data

1. Memorandum from Catherine R. Woodlee, Tetra Tech EM, Inc., to Greg Branham, Tetra Tech EM, Inc. (with attachments). This memorandum transmitted results of analytical tests for volatile organic compounds, semivolatile organic compounds, target analyte list metals, total cyanide, pesticides, polychlorinate biphenyls (PCBs), total petroleum hydrocarbons, british thermal units (Btu), ignitability, chloride and fluoride. The tests were conducted on 26 samples collected January 26 - 27, 1999, at the Industrial Pollution Control Site, Jackson, Hinds County, Mississippi. Transmitted by the attached letter of March 15, 1999, from Paula MacLaren, Tetra Tech EM, Inc., to John McKeown, EPA Region IV. (March 09, 1999)

2.7 Applicable or Relevant and Appropriate Requirements (ARARs)

1. Letter from John McKeown, EPA Region IV, to Russell Smith, Mississippi Department of Environmental Quality (MSDEQ). This letter served as a request from EPA Region IV to MSDEQ for any Applicable or Relevant and Appropriate Requirements (ARARs) regarding the Industrial Pollution Control Site, Jackson, Hinds County, Mississippi. (February 18, 1999)

2.9 Action Memoranda

1. Action Memorandum from John A. McKeown, EPA Region IV, to Richard D. Green, EPA Region IV. A request and authorization for a removal action at the Industrial Pollution Control Site, Jackson, Hinds County, Mississippi. (March 30, 1999) NOTE: Due to the CONFIDENTIAL nature of the material a portion of this document has been withheld. Withheld material is available, for Judicial review only, in the Records Center at EPA Region IV, Atlanta, Georgia.
2. Action Memorandum from John McKeown, EPA Region IV, to Richard D. Green, EPA Region IV. A request and authorization for a ceiling increase and exemption from the two million dollar statutory exemption for the removal action at the Industrial Pollution Control Site, Jackson, Hinds County, Mississippi. (November 29, 1999)
3. Action Memorandum from John McKeown, EPA Region IV, to Richard D. Green, EPA Region IV. A request and authorization for a ceiling increase for the removal action at the Industrial Pollution Control Site, Jackson, Hinds County, Mississippi. (January 31, 2000)

2.10 Pollution Reports (POLREPs)

1. Memorandum from John McKeown, EPA Region IV, to Don Rigger, EPA Region IV (with attachments). This memorandum served as the initial Pollution Report (POLREP #1) for the Industrial Pollution Control Site, Jackson, Hinds County, Mississippi. This POLREP documented a site assessment conducted December 11, 1998. (December 16, 1998)
2. Memorandum from John McKeown, EPA Region IV, to Doug Lair, EPA Region IV, and Michael Henderson, EPA Region IV. This memorandum served as Pollution Report (POLREP) #2 for the Industrial Pollution Control Site, Jackson, Hinds County, Mississippi. This POLREP documented a removal site assessment conducted January 25 - 27, 1999. (March 09, 1999)

[Final]

**Administrative Record Index
for the
INDUSTRIAL POLLUTION CONTROL Removal Site**

10.0 ENFORCEMENT

10. 6 State and Local Enforcement Records

1. Cross-Reference: Order, Before the Mississippi Commission On Environmental Quality: Mississippi Commission On Environmental Quality, Complainant, v. Industrial Pollution Control, Jackson, Mississippi, Respondent. Order No. 2521 - 93. (May 19, 1993) [Filed and cited as Reference 1 to entry 1 in 2.10 REMOVAL RESPONSE - Pollution Reports (POLREPs)].
2. Cross-Reference: Agreed Order, Before the Mississippi Commission On Environmental Quality: Mississippi Commission On Environmental Quality, Complainant, v. Industrial Pollution Control, Jackson, Mississippi, Respondent. Order No. 2736 - 94. (December 29, 1993) [Filed and cited as Reference 2 to entry 1 in 2.10 REMOVAL RESPONSE - Pollution Reports (POLREPs)].
3. Cross-Reference: Order, Before the Mississippi Commission On Environmental Quality: Mississippi Commission On Environmental Quality, Complainant, v. Industrial Pollution Control, Jackson, Mississippi, Respondent. Order No. 3441 - 97. (May 09, 1997) [Filed and cited as Reference 4 to entry 1 in 2.10 REMOVAL RESPONSE - Pollution Reports (POLREPs)].
4. Cross-Reference: Order Amendment, Before the Mississippi Commission On Environmental Quality: Mississippi Commission On Environmental Quality, Complainant, v. Industrial Pollution Control, Jackson, Mississippi, Respondent. Order No. 3441 - 97. (June 05, 1997) [Filed and cited as Reference 3 to entry 1 in 2.10 REMOVAL RESPONSE - Pollution Reports (POLREPs)].

13.0 COMMUNITY RELATIONS

13. 7 News Clippings and Press Releases

1. "The United States Environmental Protection Agency, Region IV, Announces the Public Availability of the Removal Administrative Record for the Industrial Pollution Control (IPC) Removal Site, Jackson, Hinds County, Mississippi," EPA Region IV Environmental News. (July 16, 1999)

17.0 SITE MANAGEMENT RECORDS

17. 4 Site Audio-Visuals

1. Cross-Reference: Aerial photograph of the vicinity of Industrial Pollution Control, Inc., Jackson, Hinds County, Mississippi. (DATE UNKNOWN) [Filed and cited as an attachment to entry 1 in 2.1 REMOVAL RESPONSE - Correspondence].
2. Cross-Reference: Ownership Map, Hinds County, Mississippi, Northeast Quarter of Section 9. (DATE UNKNOWN) [Filed and cited as an attachment to entry 1 in 2.1 REMOVAL RESPONSE - Correspondence].
3. Cross-Reference: Photographs taken to document the December 11, 1998, site investigation conducted at the Industrial Pollution Control Site, Jackson, Hinds County, Mississippi. (December 11, 1998) [Filed and cited as an attachment to entry 1 in 2.10 REMOVAL RESPONSE - Pollution Reports (POLREPs)].



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MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

James I. Palmer, Jr., Executive Director

November 4, 1998

Via Federal Express

Mr. Mike Norman
USEPA Region IV
61 Forsyth Street, S.W.
Atlanta, GA 30303-3104

Re: Industrial Pollution Control (IPC)
810 Poindexter Street
Jackson, Mississippi

Dear Mike:


Enclosed are the items which we discussed in our telephone conference last week regarding Industrial Pollution Control (IPC).

1. The current inventory list of IPC.
2. Several site maps of IPC.
3. A topographic map of the area around IPC.
4. Orders issued to IPC since 5/19/93.
5. A \$300,000 cleanup proposal of A & S Environmental.
6. A proposed Agreed Order with MDEQ settling current violations.
7. A current list of creditors.

As we discussed, Jackson State University is interested in purchasing this site for \$206,000 if a closure letter can be obtained from the MDEQ. It is my understanding that IPC owns the tanks at the site.

I believe I have included all the information you requested. Thank you for your assistance in this matter. If you have any questions, please call Roy Furrh (601-961-5260) or me (601-961-5573).

Sincerely,


Betty Ruth Fox
Senior Attorney

BRF/sas

Enclosures

cc: Roy Furrh, Esq.

LEGAL DIVISION

P.O. Box 20305 Jackson, MS 39289-1305 Phone 601.961.5171 Fax 601.961.5349

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W. CALVIN WELLS
(1896-1988)

CALVIN L. WELLS
OF COUNSEL

TELEPHONE
(601) 354-5400
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(601) 355-5850

November 4, 1998

Ms. Betty Ruth Fox
2380 Highway 80
Jackson, Mississippi 39289

VIA FACSIMILE
354-6612

RE: Industrial Pollution Control, Inc.

Dear Betty Ruth:

Following is information relating to Judgment and Construction Liens of Record against the property:

1. Jack Tyler Engineering, 6112 Patterson Avenue, Little Rock, Arkansas, has a Construction Lien in the amount of \$8,995.54;
2. Americrete has a Construction Lien in the amount of \$686.95;
3. The Hinds County Tax Collector has a lien for unpaid taxes in the amount \$735.66;
4. Power Equipment Company has a judgment in the amount of \$1,679.59;
5. A & A Leasing, Inc. has a judgment in the amount of \$1,493.65;
6. Tom Cotton has a judgment in the amount of \$7,500.00;
7. Teresa Cotton has a judgment in the amount of \$6,500.00.

According to the Bankruptcy schedules, Tom and Teresa Cotton's debt has been reduced to \$6,000.00 each. None of these amounts include interest, but I would propose to pay these lien holders 25% of their claims under the plan.

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Ms. Betty Ruth Fox

November 4, 1998

Page 2

Trustmark's lien is approximately \$40,000.00. I would propose to pay Trustmark 75% of its claim. I have an offer to buy the property free and clear of liens for \$30,000. Unpaid taxes are approximately \$40,000. Claims of professionals that would need to be paid will total \$25,000.00. This will be about 50% payment of attorneys and accountants fees and 100% payment to Dejonette King.

I look forward to hearing from you.

Very truly yours,



Richard Montague



Tetra Tech EM Inc.

Gwinnett Corporate Center ♦ 1750 Corporate Drive, Suite 735 ♦ Norcross, GA 30093 ♦ (770) 935-1542 ♦ FAX (770) 935-9049


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MEMORANDUM

TO: Greg Branham
Superfund Technical Assessment and Response Team (START) Project Manager

FROM: Catherine R. Woodlee
Chemist

THROUGH: R. Steve Pierce 
START Leader, U.S. Environmental Protection Agency (EPA) Region 4

SUBJECT: Industrial Pollution Controls, Inc. Site Analytical Data
TDD No. 04-9901-0004

DATE: March 9, 1999

Analytical Services, Inc., analyzed 26 samples collected on January 26 and 27, 1999, at the Industrial Pollution Controls, Inc., site in Jackson, Mississippi, for the following parameters:

- Volatile organic compounds (VOC) - 10 samples
- Semivolatile organic compounds (SVOC) - 10 samples
- Target analyte list (TAL) metals - 3 samples
- Total cyanide - 3 samples
- Pesticides - 3 samples
- Polychlorinated biphenyls (PCB) - 11 samples
- Total petroleum hydrocarbons (gasoline and diesel range organics) - 8 samples
- British thermal units (Btu) - 8 samples
- Ignitability - 8 samples
- Chloride - 8 samples
- Fluoride - 8 samples

All analytical holding times were met. The following quality control (QC) samples were analyzed:

- **VOC analysis:** QC samples analyzed were a method blank for each of two matrices (liquid and soil), a matrix spike and matrix spike duplicate (MS/MSD) in one matrix

(soil), and a laboratory control sample (LCS) in each of two matrices (liquid and soil). Method blanks showed no contaminants present at levels above the detection limits. MS/MSD analysis in a solid was performed on sample IPC-SB-1 and gave acceptable recoveries for the five compounds spiked. The LCS recoveries in both matrices were acceptable. Analytical precision, as relative percent difference (RPD), was shown to be within guidelines. Surrogate compound recoveries were reported for all samples. Recovery for toluene- d_8 in sample IPC-SS-2 was outside the method-specified limit. All other surrogate recoveries were acceptable.

- SVOC analysis:** QC samples analyzed were method blanks for each of two matrices (liquid and soil), an MS/MSD in two matrices (liquid and soil), and an LCS in each of two matrices (liquid and soil). Method blanks showed no contaminants present at levels above the detection limits. MS/MSD analysis in a liquid was performed on a sample not of this group and gave acceptable recoveries for four of five compounds spiked. Phenol recovery was high for both the MS and MSD (165 and 129 percent). MS/MSD analysis in a solid was performed on a sample not of this group and gave acceptable recoveries for three of five compounds spiked. Recovery of 4-chloro-3-methylphenol was high (148 and 142 percent), and pentachlorophenol was low (12 and 15 percent). The LCS recoveries in both matrices were acceptable. Analytical precision, as RPD, was shown to be within guidelines. Surrogate compound recoveries were reported for all samples. The following surrogate recoveries were outside the method-specified limits because of matrix interference: phenol- d_5 in sample IPC-DR-1, nitrobenzene- d_5 in sample IPC-DR-1, and terphenyl- d_{14} in sample IPC-SS-2. All other surrogate recoveries were acceptable.
- TAL metals analyses:** QC samples analyzed were an MS/MSD, a post-digestion spike (PDS), and an LCS, all in the soil matrix. MS/MSD analyses were performed on samples not of this group and gave acceptable recoveries except as follows: high recoveries for silver, aluminum, and iron in the MS; low recoveries for barium and antimony in the MS; high recovery for aluminum in the MSD; and low recoveries for beryllium, cadmium, chromium, iron, magnesium, manganese, lead, antimony, and zinc in the MSD. Analytical precision, as RPD, was shown to be within guidelines with the exception of the following: RPD was high for silver, aluminum, and barium. The PDS gave acceptable recoveries except as follows: high recovery for selenium and iron and low recovery for aluminum, magnesium, and zinc. The LCS recoveries were acceptable.
- Total cyanide analysis:** QC samples analyzed were a method blank, an MS/MSD, and an LCS, all in the soil matrix. The method blank showed no cyanide present at a level above the detection limit. MS/MSD analysis was performed on a sample not of this group and gave acceptable recovery for cyanide. Analytical precision, as RPD, was shown to be within guidelines. The LCS recoveries were acceptable.
- Pesticides analysis:** QC samples analyzed were a method blank, an MS/MSD, and an LCS, all in the soil matrix. The method blank showed no contaminants present at levels above the detection limits. MS/MSD analysis was performed on a sample not of this group and gave acceptable recoveries for five of six compounds spiked. Recovery of 4,4'-DDT was low (9 and 5 percent). The LCS recoveries were

acceptable. Analytical precision, as RPD, was shown to be within guidelines. Surrogate compound recoveries were reported for all samples. All surrogate recoveries were acceptable.

- **PCB analysis:** QC samples analyzed were method blanks for each of two matrices (oil and soil), an MS/MSD in two matrices (oil and soil), and an LCS in each of two matrices (oil and soil). The method blanks showed no contaminants present at levels above the detection limits. MS/MSD analysis in oil was performed on sample IPC-TK-2B and gave acceptable recoveries for one of two compounds spiked. PCB 1016 recovery was high (200 and 256 percent). MS/MSD analysis in soil was performed on sample IPC-SS-1 and gave acceptable recoveries for both compounds spiked. The LCS recoveries were acceptable. Analytical precision, as RPD, was shown to be within guidelines. Surrogate compound recoveries were reported for all samples. The following surrogate recoveries were outside the method-specified limits: decachlorobiphenyl in samples IPC-TK-1A, IPC-TK-1B, and IPC-TK-4A. All other surrogate recoveries were acceptable.
- **Total petroleum hydrocarbons analysis:** QC samples analyzed were a method blank, an MS/MSD, and a LCS for each of the two analyses. The method blanks showed no contaminants present at levels above the detection limits. The MS/MSD analysis and the LCS analysis gave acceptable recoveries for compounds of interest. Surrogate compound recoveries were reported for all samples. The following surrogate recoveries were outside the method-specified limits: n-pentacosane in sample IPC-SB-3. All other surrogate recoveries were acceptable.

All results are usable as presented in Tables 1 through 3.

TABLE 1A
INDUSTRIAL POLLUTION CONTROLS, INC., SITE
ANALYTICAL DATA

Drum Samples Collected January 26, 1999

Parameter	Sample Identification and Location		
	IPC-DR-1	IPC-DR-2	IPC-DR-3
	Drum - 1	Drum - 2	Drum - 3
Volatile Organic Compounds (mg/L)			
n-Butylbenzene	1,100	ND	ND ^a
Ethylbenzene	540	ND	ND
4-Methyl-2-pentanone	ND	590	ND
n-Propylbenzene	1,600	ND	ND
1,2,4-Trimethylbenzene	10,000	ND	ND
1,3,5-Trimethylbenzene	5,400	ND	ND
m,p-Xylene	5,000	ND	ND
o-Xylene	3,900	ND	ND
Xylenes (total)	8,900	ND	ND
Semivolatile Organic Compounds (mg/L)			
2-Methylnaphthalene	ND	ND	1,200
Phenanthrene	ND	ND	1,500

Notes: mg/L Milligrams per liter
 ND Not detected
^a Units are milligrams per kilogram

TABLE 1B
INDUSTRIAL POLLUTION CONTROLS, INC., SITE
ANALYTICAL DATA

Drum Samples Collected January 26, 1999

Parameter	Sample Identification and Location		
	IPC-DR-4	IPC-DR-5	IPC-DR-6
	Drum - 4	Drum - 5	Drum - 6
Volatile Organic Compounds (mg/L)			
Naphthalene	ND	23	ND
Semivolatile Organic Compounds (SVOC) (mg/L)			
SW-846 SVOC Compounds	ND	ND	ND

Notes: mg/L Milligrams per liter
 ND Not detected
 SVOC Semivolatile organic compounds
 SW Solid waste

TABLE 2A
INDUSTRIAL POLLUTION CONTROLS, INC., SITE
ANALYTICAL DATA

Soil Samples Collected January 27, 1999

Parameter	Sample Identification and Location			
	IPC-SS-1	IPC-SS-2	IPC-SS-3	IPC-SS-4
	Surface soil - 1	Surface soil - 2	Surface soil - 3	Surface soil - 4
Volatile Organic Compounds (µg/kg)				
Acetone	ND	ND	ND	260
Benzene	ND	ND	ND	39
n-Butylbenzene	ND	ND	ND	15
Ethylbenzene	ND	ND	ND	93
Naphthalene	ND	ND	ND	10
n-Propylbenzene	ND	ND	ND	14
Toluene	ND	ND	ND	12
1,2,4-Trimethylbenzene	ND	ND	ND	55
1,3,5-Trimethylbenzene	ND	ND	ND	34
m,p-Xylene	ND	ND	ND	95
o-Xylene	ND	ND	ND	30
Xylenes (total)	ND	ND	ND	130
Semivolatile Organic Compounds (µg/kg)				
Anthracene	9,600	ND	ND	ND
bis(2-Ethylhexyl) phthalate	ND	2,300	1,600	ND
Dibenzofuran	440	ND	ND	ND
Fluorene	1,600	ND	ND	ND
Pyrene	ND	500	390	ND
Target Analyte List Metals (mg/kg)				
Aluminum	3,400	5,900	5,500	10,000
Antimony	ND	ND	ND	ND
Arsenic	ND	ND	5.6	3.1
Barium	15	43	77	54
Beryllium	ND	ND	ND	ND
Cadmium	ND	ND	1.1	ND
Calcium	860	2,600	2,200	2,000
Chromium	3.9	10	14	9.2
Cobalt	ND	ND	ND	5.1
Copper	7.0	44	68	9.2
Iron	4,000	8,600	11,000	17,000
Lead	8.0	18	44	14
Magnesium	230	640	720	990
Manganese	24	140	170	470

TABLE 2A (continued)
INDUSTRIAL POLLUTION CONTROLS, INC., SITE
ANALYTICAL DATA

Soil Samples Collected January 27, 1999

Parameter	Sample Identification and Location			
	IPC-SS-1	IPC-SS-2	IPC-SS-3	IPC-SS-4
	Surface soil - 1	Surface soil - 2	Surface soil - 3	Surface soil - 4
Target Analyte List Metals (mg/kg) (continued)				
Mercury	ND	ND	ND	ND
Nickel	2.9	8.5	12	7.9
Potassium	260	490	570	670
Selenium	ND	ND	ND	ND
Silver	ND	ND	ND	ND
Sodium	340	260	400	390
Thallium	ND	ND	ND	ND
Vanadium	6.8	13	16	23
Zinc	38	180	130	41
Total Cyanide (mg/kg)				
Cyanide	ND	ND	0.3	ND
Pesticides (µg/kg)				
SW-846 Method 8081A Compounds	ND	ND	ND	ND
Polychlorinated biphenyls (µg/kg)				
SW-846 Method 8082 Compounds	ND	ND	ND	ND

Notes: µg/kg Microgram per kilogram
 mg/kg Milligrams per kilogram
 ND Not detected
 SW Solid waste

TABLE 2B
INDUSTRIAL POLLUTION CONTROLS, INC., SITE
ANALYTICAL DATA

Soil Samples Collected January 27, 1999

Parameter	Sample Identification and Location			
	IPC-SB-1	IPC-SB-2	IPC-SB-3	IPC-SB-4
	Subsurface soil - 1	Subsurface soil - 2	Subsurface soil - 3	Subsurface soil - 4
Gasoline range organics (mg/kg)				
EPA Method 8260B Compounds	ND	29	ND	ND
Diesel range organics (mg/kg)				
EPA Method 8015B Compounds	ND	43	280	8.0

Notes: mg/kg Milligrams per kilogram
 ND Not detected

TABLE 2C
INDUSTRIAL POLLUTION CONTROLS, INC., SITE
ANALYTICAL DATA

Soil Samples Collected January 27, 1999

Parameter	Sample Identification and Location			
	IPC-SS-5	IPC-SB-5	IPC-SB-6	IPC-SB-7
	Surface soil - 5	Subsurface soil - 5	Subsurface soil - 6	Subsurface soil - 7
Gasoline range organics (mg/kg)				
EPA Method 8260B Compounds	ND	ND	ND	ND
Diesel range organics (mg/kg)				
EPA Method 8015B Compounds	45	34	175	110

Notes: mg/kg Milligrams per kilogram
 ND Not detected

**TABLE 3A
INDUSTRIAL POLLUTION CONTROLS, INC., SITE
ANALYTICAL DATA**

Tank Samples Collected January 27, 1999

Parameter	Sample Identification and Location			
	IPC-TK-1A	IPC-TK-1B	IPC-TK-2B	IPC-TK-2C
	Tank sample 1A	Tank sample 1B	Tank sample 2B	Tank sample 2C
Polychlorinated biphenyls (µg/kg)				
EPA Method 8082	ND	ND	ND	ND
Compounds				
British thermal units (Btu/lb)				
BTU	5,600	6,600	17,800	13,700
Ignitability (°F)				
Ignitability	134	>212	>212	174
Chloride (mg/L)				
Chloride	1,200	1,300	1,600	1,900
Fluoride (mg/L)				
Fluoride	13	40	ND	ND

Notes: > Greater than
 µg/kg Micrograms per kilogram
 °F Degrees Fahrenheit
 Btu/lb British thermal units per pound
 mg/L Milligrams per liter
 ND Not detected

TABLE 3B
INDUSTRIAL POLLUTION CONTROLS, INC., SITE
ANALYTICAL DATA

Tank Samples Collected January 27, 1999

Parameter	Sample Identification and Location			
	IPC-TK-3A	IPC-TK-4A	IPC-TK-5A	IPC-TK-5B
	Tank sample 3A	Tank sample 4A	Tank sample 5A	Tank sample 5B
Polychlorinated biphenyls (µg/kg)				
EPA Method 8082 Compounds	ND	ND	ND	ND
British thermal units (Btu/lb)				
BTU	19,800	19,800	10,300	7,600
Ignitability (°F)				
Ignitability	>212	>212	168	>212
Chloride (mg/L)				
Chloride	3,200	2,200	4,400	2,400
Fluoride (mg/L)				
Fluoride	ND	ND	20	20

Notes: > Greater than
 °F Degrees Fahrenheit
 µg/kg Micrograms per kilogram
 mg/L Milligrams per liter
 Btu/lb British thermal units per pound

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL SERVICES DIVISION
COLLEGE STATION ROAD
ATHENS, GEORGIA 30613

VYZTS

V 217

PROJ. NO		PROJECT NAME		STATION LOCATION		NO OF CONTAINERS		Water/Wastewater										Waste		Misc		REMARKS/TAG NUMBERS	
990101		Industrial Pollution Control (IPC)		K-57A		1		Circular Acid Parameters Desired () - Indicates Sulfate Containers										Solid Sampling				104092	
STA NO	DATE	TIME	COMP	GRAB																			
TK-1A	12-7-99	1432			Tank Sample - 1A																		
TK-1B	1430				1B																		
TK-2A	1445				2A																		
TK-2B	1447				2B																		
TK-2C	1455				2C																		
TK-3A	1530				3A																		
TK-4A	1600				4A																		
TK-5A	1630				5A																		
TK-5B	1630				5B																		
pg. 2 of 3																							
Remarks Analyze Egan 802 Tank Sample For: BTU, Fresh Point, PCB, chloride, and Fluoride																							
Do NOT Analyze TK-2A sample see no real temp = 46. pH = 11.5																							

Relinquished by (Signature) *[Signature]* Date/Time 1/29/10

Relinquished by (Signature) *[Signature]* Date/Time 1/29/10

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U. S. ENVIRONMENTAL PROTECTION AGENCY
REGION 4 TAT

CHAIN OF CUSTODY RECORD

ENVIRONMENTAL SERVICES DIVISION
COLLEGE STATION ROAD
ATHENS, GEORGIA 30613

VY275

PROJ NO		PROJECT NAME		STATION LOCATION		NO OF CONTAINERS		Circled Parameters Desired Separate Containers		Water/Wastewater		Soil/Sed Sed		Waste		Misc		REMARKS/TAG NUMBERS	
STA NO	DATE	TIME	COMP	GRAB															
990101	1-27-79	0925		X	Surface Soil - 1	1													104092
IPC-SS-1				X	Surface Soil - 1	1													
IPC-SB-1				X	Subsurface Soil - 1	1													
IPC-SS-2				X	Surface Soil - 2	1													
IPC-SB-2				X	Subsurface Soil - 2	1													
IPC-SS-3				X	Surface Soil - 3	1													
IPC-SB-3				X	Subsurface Soil - 3	1													
IPC-SS-4				X	Surface Soil - 4	1													
IPC-SB-4				X	Subsurface Soil - 4	1													
IPC-SS-5				X	Surface Soil - 5	1													
IPC-SB-5				X	Subsurface Soil - 5	1													
IPC-SS-6				X	Surface Soil - 6	1													
IPC-SB-6				X	Subsurface Soil - 6	1													
IPC-SS-7				X	Surface Soil - 7	1													
IPC-SB-7				X	Subsurface Soil - 7	1													

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
<i>[Signature]</i>	1/29/79 1100	<i>[Signature]</i>	1/29/79 1105	<i>[Signature]</i>		<i>[Signature]</i>	
<i>[Signature]</i>		<i>[Signature]</i>		<i>[Signature]</i>		<i>[Signature]</i>	

ice, no seal, Temp = 4C, pH = 7.1

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CHAIN OF CUSTODY RECORD

ENVIRONMENTAL SERVICES DIVISION
COLLEGE STATION ROAD
ATHENS, GEORGIA 30613

V Y275

PROJ NO		PROJECT NAME		STATION LOCATION		NO OF CONTAINERS		Circled Parameters Desired Separate Containers		Water/Wastewater		Solid/Semi-Solid		Waste		Misc		REMARKS/TAG NUMBERS	
STA NO	DATE	TIME	COMP	GRAB	DATE	TIME	NO OF CONTAINERS	Circled Parameters Desired Separate Containers	Water/Wastewater	Solid/Semi-Solid	Waste	Misc	REMARKS/TAG NUMBERS						
990101	12-09-99	1230	X	X	DRUM - 1	1230	3	X	X	X	X	X	104092						
DR-2	1310	X	X	X	DRUM - 2	1310	3	X	X	X	X	X	VGA a, b						
DR-3	1348	X	X	X	DRUM - 3	1348	1	X	X	X	X	X	SUA - C						
DR-4	1409	X	X	X	DRUM - 4	1409	1	X	X	X	X	X	-						
DR-5	1400	X	X	X	DRUM - 5	1400	1	X	X	X	X	X	-						
DR-6	1440	X	X	X	DRUM - 6	1440	1	X	X	X	X	X	-						
pg 1 of 3																			

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time	Remarks
<i>[Signature]</i>	11/11/00	<i>[Signature]</i>	11/11/00	<i>[Signature]</i>	11/11/00	<i>[Signature]</i>	11/11/00	<i>[Signature]</i>	11/11/00	<i>[Signature]</i>	11/11/00	Analyte Drum Samples for Vol + semi Vol
<i>[Signature]</i>	11/11/00	<i>[Signature]</i>	11/11/00	<i>[Signature]</i>	11/11/00	<i>[Signature]</i>	11/11/00	<i>[Signature]</i>	11/11/00	<i>[Signature]</i>	11/11/00	iee, no seal, Temp = 4°C, pH = 4.0

2 March, 1999

Case Narrative ASI Sample 104092

Twenty-six samples were collected on 26 and 27 January, 1999 and arrived at ASI on 29 January, 1999. All conditions for proper preservation and shipment were met. The samples were logged into LIMS for analysis of O-CI pesticides, BNA, DRO, PCBs, VOC, GRO, metals, flashpoint, BTU, chloride, and fluoride. All holding times were met.

Organochlorine pesticides for soil samples were analyzed in batch 44741 using EPA method 8081. Low MS/MSD recoveries for 4,4'-DDT were noted. Otherwise measurement quality objectives were met.

Base neutrals/acids for waste dilution samples were analyzed in batches 44756/45653 using EPA method 8270. In batch 44756, high MS/MSD recoveries for phenol were noted. Sample 104092-1 and sample 104092-1DUP exhibited high S2 and S3 surrogate recoveries due to matrix interference. The S4 recovery for sample 104092-1DUP was also high. Sample 104092-1 was reported. In batch 45653, the MS/MSD recoveries for 4-nitrophenol were slightly high. Otherwise measurement quality objectives were met.

Base neutrals/acids for soil samples were analyzed in batch 45561 using EPA method 8270. In this batch, the sample used for MS/MSD exhibited high matrix interference. The MS/MSD recoveries were high for 4-chloro-3-methylphenol and low for pentachlorophenol. The MS RPDs for acenaphthene and 2-chlorophenol were slightly high. A slightly high S6 surrogate recovery was noted for sample 104092-17. Sample 104092-15 was also analyzed at a 1:10 dilution in order to bring target analytes within calibration. Otherwise measurement quality objectives were met.

Diesel range organics for solid samples were analyzed in batch 45440 using EPA method 8015B. Samples 104092-20, 104092-25, and 104092-26 were analyzed at a 1:10 dilution. The S2 recovery for 104092-20 was zero. Otherwise measurement quality objectives were met.

PCBs for oil samples were analyzed in batch 45577 using EPA method 8082. The MS/MSD recoveries for PCB 1016 were high. High S2 surrogate recoveries for samples 104092-7D, 104092-7DUPD, 104092-8D, and 104092-12D were high. The S1 surrogate recovery for 104092-7DUPD was low. Sample 104092-7D was reported. PCBs for solid samples were analyzed in batch 45580 using EPA method 8082. In this batch, all measurement quality objectives were met.

Volatile organics for soil samples were analyzed in batch 45786 using EPA method 8260. Samples 104092-16 and 104092-17 exhibited high and low surrogate recoveries, however the samples were analyzed in duplicate and the duplicates were reported. Sample 104092-19 exhibited a high S1 and low S2/S4 recoveries. A high S1 and low S2 recoveries were noted in 104092-19DUP due to matrix interference. The duplicate of 104092-19 was reported. Volatile organics for aqueous samples were analyzed in batch 45789 using EPA method 8260. In this batch, no MS/MSD was analyzed. Samples 104092-2, 104092-4, 104092-5, and 104092-6 were analyzed at a 1:1000 dilution. Sample 104092-1 was analyzed at a 1:100,000 dilution and sample 104092-2 was reanalyzed at a 1:5000 dilution. Otherwise measurement quality objectives were met.

Gasoline range organics for solid samples were analyzed in batch 45788 using EPA method 8260B. The MSD analyzed in duplicate for and reported due to high recoveries in the original MSD. Samples 104092-16 and 104092-20 exhibited surrogate recoveries outside of acceptance range, however these samples were analyzed in duplicate and the duplicates were reported. Sample 104092 was reanalyzed at a 1:50 dilution. All other measurement quality objectives were met.

Mercury for soil samples was analyzed in batch 44956 using EPA method 7471. All measurement quality objectives for mercury were met. Selenium, arsenic, and thallium were analyzed in batch 45485 using graphite furnace AA EPA methods 7740, 7060, and 7841 respectively. In this batch, the PDS recovery for selenium was high. The remaining metals were analyzed in batch 45486 using trace-ICP EPA method 6010. In this batch, MS recoveries were high for silver, aluminum, and iron; MS recoveries were low for barium and antimony; MSD recoveries were low for beryllium, cadmium, chromium, iron, magnesium, manganese, lead, antimony, and zinc; the MSD recovery for aluminum was high; MS RPDs were high for silver, aluminum, and barium; the PDS

recoveries for low for aluminum, magnesium, and zinc and high for iron. Otherwise measurement quality objectives were met.

Ignitability was analyzed in batch 45192 using EPA method 1010. All measurement quality objectives were met.

British thermal units/pound were analyzed in batch 45718 using ASTM D 240. All measurement quality objectives were met.

Cyanide was analyzed in batch 45741 using EPA method 9014. All measurement quality objectives were met.

Chloride and fluoride were analyzed in batch 45797 using EPA method 6500. No LCSD/MS/MSD was analyzed, however multiple calibration checks were recorded. Samples 104092-9, 104092-10, 104092-11, and 104092-12 were reanalyzed at a 1:10 dilution and sample 104092-13 was reanalyzed at a 1:2 dilution. Otherwise measurement quality objectives were met.

Respectfully yours,



Jon Neuhaus

Quality Assurance

ASI**ANALYTICAL SERVICES, INC.**

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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(770) 734-4200 • FAX (770) 734-4201

2 2 0016

LABORATORY REPORTTetra Tech Inc.
1750 Corporate Drive
Suite 735
Norcross, GA 30093

February 12, 1999

P.O. No. 24619

Attention: Ms. Paula MacLaren

Report No. 104092-1Sample DescriptionOil, grab, Industrial Pollution Control, Project #990101, IPC-DR-1 (Drum 1),
01/26/99, 12:30, received 01/29/99RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(mg/l)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/l)</u>
Acetone.....	BDL	10000
Acrolein.....	BDL	5000
Acrylonitrile.....	BDL	5000
Benzene.....	BDL	200
Bromobenzene.....	BDL	1000
Bromochloromethane.....	BDL	1000
Bromodichloromethane.....	BDL	1000
Bromoform.....	BDL	1000
Bromomethane.....	BDL	1000
2-Butanone.....	BDL	1000
n-Butylbenzene.....	BDL	10000
sec-Butylbenzene.....	1100	1000
tert-Butylbenzene.....	BDL	1000
Carbon disulfide.....	BDL	1000
Carbon tetrachloride.....	BDL	1000
Chlorobenzene.....	BDL	200
Chloroethane.....	BDL	1000
Chloroform.....	BDL	500
Chloromethane.....	BDL	200
2-Chlorotoluene.....	BDL	1000
3-Chlorotoluene.....	BDL	1000
2-Chloroethylvinyl ether.....	BDL	1000
	BDL	1000

DL - Below Detection Limit

Tetra Tech Inc.
Page 2 of 5

February 12, 1999
Report No. 104092-1

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-1 (Drum 1),
01/26/99, 12:30, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result (mg/l)</u>	<u>Detection Limit (mg/l)</u>
Dibromochloromethane.....	BDL	1000
1,2-Dibromo-3-chloropropane.....	BDL	1000
1,2-Dibromoethane.....	BDL	1000
Dibromomethane.....	BDL	1000
1,2-Dichlorobenzene.....	BDL	1000
1,3-Dichlorobenzene.....	BDL	1000
1,4-Dichlorobenzene.....	BDL	1000
Dichlorodifluoromethane.....	BDL	1000
1,1-Dichloroethane.....	BDL	200
1,2-Dichloroethane.....	BDL	200
1,1-Dichloroethene.....	BDL	200
cis-1,2-Dichloroethene.....	BDL	200
trans-1,2-Dichloroethene.....	BDL	200
1,2-Dichloropropane.....	BDL	200
1,3-Dichloropropane.....	BDL	200
2,2-Dichloropropane.....	BDL	1000
1,1-Dichloropropene.....	BDL	1000
cis-1,3-Dichloropropene.....	BDL	200
trans-1,3-Dichloropropene.....	BDL	200
Ethylbenzene.....	540	200
Hexachlorobutadiene.....	BDL	1000
2-Hexanone.....	BDL	1000
Isopropylbenzene.....	BDL	1000
p-Isopropyltoluene.....	BDL	1000
Methylene chloride.....	BDL	500
4-Methyl-2-pentanone.....	BDL	1000
Naphthalene.....	BDL	1000
n-Propylbenzene.....	1600	1000
Styrene.....	BDL	500
1,1,1,2-Tetrachloroethane.....	BDL	200
1,1,2,2-Tetrachloroethane.....	BDL	200
Tetrachloroethene.....	BDL	200
Toluene.....	BDL	200
1,2,3-Trichlorobenzene.....	BDL	1000
1,2,4-Trichlorobenzene.....	BDL	1000
1,1,1-Trichloroethane.....	BDL	200
1,1,2-Trichloroethane.....	BDL	200
Trichloroethene.....	BDL	200

BDL - Below Detection Limit

Tetra Tech Inc.
Page 3 of 5

February 12, 1999
Report No. 104092-1

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-1 (Drum 1),
01/26/99, 12:30, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(mg/l)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/l)</u>
Trichlorofluoromethane.....	BDL	1000
1,2,3-Trichloropropane.....	BDL	1000
1,2,4-Trimethylbenzene.....	10000	1000
1,3,5-Trimethylbenzene.....	5400	1000
Vinyl acetate.....	BDL	1000
Vinyl chloride.....	BDL	1000
m+p-Xylene.....	5000	500
o-Xylene.....	3900	500
Xylenes (total).....	8900	500
<u>Acid Extractable Organics (EPA 8270C)</u>	<u>(mg/l)</u>	<u>(mg/l)</u>
4-Chloro-3-methylphenol.....	BDL	1000
2-Chlorophenol.....	BDL	1000
2,4-Dichlorophenol.....	BDL	1000
2,4-Dimethylphenol.....	BDL	1000
4,6-Dinitro-2-methylphenol.....	BDL	1000
2,4-Dinitrophenol.....	BDL	1000
2-Methylphenol.....	BDL	1000
4-Methylphenol.....	BDL	1000
2-Nitrophenol.....	BDL	1000
4-Nitrophenol.....	BDL	1000
Pentachlorophenol.....	BDL	1000
Phenol.....	BDL	1000
2,4,5-Trichlorophenol.....	BDL	1000
2,4,6-Trichlorophenol.....	BDL	1000
<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>(mg/l)</u>	<u>(mg/l)</u>
Acenaphthene.....	BDL	1000
Acenaphthylene.....	BDL	1000
Anthracene.....	BDL	1000
Benzoic Acid.....	BDL	1000
Benzo(a)anthracene.....	BDL	1000
Benzo(b)fluoranthene.....	BDL	1000
Benzo(k)fluoranthene.....	BDL	1000
Benzo(ghi)perylene.....	BDL	1000
Benzo(a)pyrene.....	BDL	1000

BDL - Below Detection Limit

Tetra Tech Inc.
Page 4 of 5

February 12, 1999
Report No. 104092-1

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-1 (Drum 1),
01/26/99, 12:30, received 01/29/99

RESULTS

<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>Result (mg/l)</u>	<u>Detection Limit (mg/l)</u>
Benzyl Alcohol.....	BDL	1000
Bis(2-chloroethoxy)methane.....	BDL	1000
Bis(2-chloroethyl)ether.....	BDL	1000
Bis(2-chloroisopropyl)ether.....	BDL	1000
Bis(2-ethylhexyl)phthalate.....	BDL	1000
4-Bromophenyl phenyl ether.....	BDL	1000
Benzyl butyl phthalate.....	BDL	1000
4-Chloroaniline.....	BDL	1000
2-Chloronaphthalene.....	BDL	1000
4-Chlorophenyl phenyl ether.....	BDL	1000
Chrysene.....	BDL	1000
Dibenzo(a,h)anthracene.....	BDL	1000
Dibenzofuran.....	BDL	1000
Di-n-butylphthalate.....	BDL	1000
1,3-Dichlorobenzene.....	BDL	1000
1,4-Dichlorobenzene.....	BDL	1000
1,2-Dichlorobenzene.....	BDL	1000
3,3'-Dichlorobenzidine.....	BDL	1000
Diethylphthalate.....	BDL	1000
Dimethylphthalate.....	BDL	1000
2,4-Dinitrotoluene.....	BDL	1000
2,6-Dinitrotoluene.....	BDL	1000
Di-n-octylphthalate.....	BDL	1000
Fluoranthene.....	BDL	1000
Fluorene.....	BDL	1000
Hexachlorobenzene.....	BDL	1000
Hexachlorobutadiene.....	BDL	1000
Hexachlorocyclopentadiene.....	BDL	1000
Hexachloroethane.....	BDL	1000
Indeno(1,2,3-cd)pyrene.....	BDL	1000
Isophorone.....	BDL	1000
2-Methylnaphthalene.....	BDL	1000
Naphthalene.....	BDL	1000
2-Nitroaniline.....	BDL	1000
3-Nitroaniline.....	BDL	1000
4-Nitroaniline.....	BDL	1000
Nitrobenzene.....	BDL	1000
N-Nitrosodimethylamine.....	BDL	1000

BDL - Below Detection Limit

2 2 0020

Tetra Tech Inc.
Page 5 of 5

February 12, 1999
Report No. 104092-1

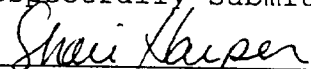
Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-1 (Drum 1),
01/26/99, 12:30, received 01/29/99

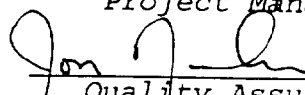
RESULTS

<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>Result</u> <u>(mg/l)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/l)</u>
N-Nitrosodiphenylamine.....	BDL	1000
N-Nitrosodi-n-propylamine.....	BDL	1000
Phenanthrene.....	BDL	1000
Pyrene.....	BDL	1000
1,2,4-Trichlorobenzene.....	BDL	1000

BDL - Below Detection Limit

Respectfully submitted,


Project Manager


Quality Assurance

ASI**ANALYTICAL SERVICES, INC.**

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

2 2 0021

LABORATORY REPORTTetra Tech Inc.
1750 Corporate Drive
Suite 735
Norcross, GA 30093

February 12, 1999

P.O. No. 24619Report No. 104092-2

Attention: Ms. Paula MacLaren

Sample DescriptionOil, grab, Industrial Pollution Control, Project #990101, IPC-DR-2 (Drum 2),
01/26/99, 13:10, received 01/29/99**RESULTS****Volatile Organics (EPA 8260B)**

Result (mg/l)	Detection Limit (mg/l)
BDL	100
BDL	50
BDL	50
BDL	2
BDL	10
BDL	10
BDL	10
BDL	10
BDL	10
BDL	100
BDL	10
BDL	10
BDL	10
BDL	10
BDL	2
BDL	10
BDL	5
BDL	2
BDL	10
BDL	10
BDL	10
BDL	10

DL - Below Detection Limit

Tetra Tech Inc.
Page 2 of 5

February 12, 1999
Report No. 104092-2

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-2 (Drum 2),
01/26/99, 13:10, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result (mg/l)</u>	<u>Detection Limit (mg/l)</u>
Dibromochloromethane.....	BDL	10
1,2-Dibromo-3-chloropropane.....	BDL	10
1,2-Dibromoethane.....	BDL	10
Dibromomethane.....	BDL	10
1,2-Dichlorobenzene.....	BDL	10
1,3-Dichlorobenzene.....	BDL	10
1,4-Dichlorobenzene.....	BDL	10
Dichlorodifluoromethane.....	BDL	10
1,1-Dichloroethane.....	BDL	2
1,2-Dichloroethane.....	BDL	2
1,1-Dichloroethene.....	BDL	2
cis-1,2-Dichloroethene.....	BDL	2
trans-1,2-Dichloroethene.....	BDL	2
1,2-Dichloropropane.....	BDL	2
1,3-Dichloropropane.....	BDL	2
2,2-Dichloropropane.....	BDL	10
1,1-Dichloropropene.....	BDL	10
cis-1,3-Dichloropropene.....	BDL	2
trans-1,3-Dichloropropene.....	BDL	2
Ethylbenzene.....	BDL	2
Hexachlorobutadiene.....	BDL	10
2-Hexanone.....	BDL	10
Isopropylbenzene.....	BDL	10
p-Isopropyltoluene.....	BDL	10
Methylene chloride.....	BDL	5
4-Methyl-2-pentanone.....	590	10
Naphthalene.....	BDL	10
n-Propylbenzene.....	BDL	10
Styrene.....	BDL	5
1,1,1,2-Tetrachloroethane.....	BDL	2
1,1,2,2-Tetrachloroethane.....	BDL	2
Tetrachloroethene.....	BDL	2
Toluene.....	BDL	2
1,2,3-Trichlorobenzene.....	BDL	10
1,2,4-Trichlorobenzene.....	BDL	10
1,1,1-Trichloroethane.....	BDL	2
1,1,2-Trichloroethane.....	BDL	2
Trichloroethene.....	BDL	2

DL - Below Detection Limit

Tetra Tech Inc.
Page 3 of 5

February 12, 1999
Report No. 104092-2

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-2 (Drum 2),
01/26/99, 13:10, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(mg/l)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/l)</u>
Trichlorofluoromethane.....	BDL	10
1,2,3-Trichloropropane.....	BDL	10
1,2,4-Trimethylbenzene.....	BDL	10
1,3,5-Trimethylbenzene.....	BDL	10
Vinyl acetate.....	BDL	10
Vinyl chloride.....	BDL	10
m+p-Xylene.....	BDL	10
o-Xylene.....	BDL	5
Xylenes (total).....	BDL	5
<u>Acid Extractable Organics (EPA 8270C)</u>	<u>(mg/l)</u>	<u>(mg/l)</u>
4-Chloro-3-methylphenol.....	BDL	1000
2-Chlorophenol.....	BDL	1000
2,4-Dichlorophenol.....	BDL	1000
2,4-Dimethylphenol.....	BDL	1000
4,6-Dinitro-2-methylphenol.....	BDL	1000
2,4-Dinitrophenol.....	BDL	1000
2-Methylphenol.....	BDL	1000
4-Methylphenol.....	BDL	1000
2-Nitrophenol.....	BDL	1000
4-Nitrophenol.....	BDL	1000
Pentachlorophenol.....	BDL	1000
Phenol.....	BDL	1000
2,4,5-Trichlorophenol.....	BDL	1000
2,4,6-Trichlorophenol.....	BDL	1000
<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>(mg/l)</u>	<u>(mg/l)</u>
Acenaphthene.....	BDL	1000
Acenaphthylene.....	BDL	1000
Anthracene.....	BDL	1000
Benzoic Acid.....	BDL	1000
Benzo(a)anthracene.....	BDL	1000
Benzo(b)fluoranthene.....	BDL	1000
Benzo(k)fluoranthene.....	BDL	1000
Benzo(ghi)perylene.....	BDL	1000
Benzo(a)pyrene.....	BDL	1000

BDL - Below Detection Limit

Tetra Tech Inc.
Page 4 of 5

February 12, 1999
Report No. 104092-2

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-2 (Drum 2),
01/26/99, 13:10, received 01/29/99

RESULTS

<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>Result</u> <u>(mg/l)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/l)</u>
Benzyl Alcohol.....	BDL	1000
Bis(2-chloroethoxy)methane.....	BDL	1000
Bis(2-chloroethyl)ether.....	BDL	1000
Bis(2-chloroisopropyl)ether.....	BDL	1000
Bis(2-ethylhexyl)phthalate.....	BDL	1000
4-Bromophenyl phenyl ether.....	BDL	1000
Benzyl butyl phthalate.....	BDL	1000
4-Chloroaniline.....	BDL	1000
2-Chloronaphthalene.....	BDL	1000
4-Chlorophenyl phenyl ether.....	BDL	1000
Chrysene.....	BDL	1000
Dibenzo(a,h)anthracene.....	BDL	1000
Dibenzofuran.....	BDL	1000
Di-n-butylphthalate.....	BDL	1000
1,3-Dichlorobenzene.....	BDL	1000
1,4-Dichlorobenzene.....	BDL	1000
1,2-Dichlorobenzene.....	BDL	1000
3,3'-Dichlorobenzidine.....	BDL	1000
Diethylphthalate.....	BDL	1000
Dimethylphthalate.....	BDL	1000
2,4-Dinitrotoluene.....	BDL	1000
2,6-Dinitrotoluene.....	BDL	1000
Di-n-octylphthalate.....	BDL	1000
Fluoranthene.....	BDL	1000
Fluorene.....	BDL	1000
Hexachlorobenzene.....	BDL	1000
Hexachlorobutadiene.....	BDL	1000
Hexachlorocyclopentadiene.....	BDL	1000
Hexachloroethane.....	BDL	1000
Indeno(1,2,3-cd)pyrene.....	BDL	1000
Isophorone.....	BDL	1000
2-Methylnaphthalene.....	BDL	1000
Naphthalene.....	BDL	1000
2-Nitroaniline.....	BDL	1000
3-Nitroaniline.....	BDL	1000
4-Nitroaniline.....	BDL	1000
Nitrobenzene.....	BDL	1000
N-Nitrosodimethylamine.....	BDL	1000

BDL - Below Detection Limit

2 2 0025

Tetra Tech Inc.
Page 5 of 5

February 12, 1999
Report No. 104092-2

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-2 (Drum 2),
01/26/99, 13:10, received 01/29/99

RESULTS

<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>Result</u> <u>(mg/l)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/l)</u>
N-Nitrosodiphenylamine.....	BDL	1000
N-Nitrosodi-n-propylamine.....	BDL	1000
Phenanthrene.....	BDL	1000
Pyrene.....	BDL	1000
1,2,4-Trichlorobenzene.....	BDL	1000

BDL - Below Detection Limit

Respectfully submitted,

Shari Harper
Project Manager

Jim [Signature]
Quality Assurance

ASI**ANALYTICAL SERVICES, INC.**

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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2 2 0026

LABORATORY REPORTTetra Tech Inc.
1750 Corporate Drive
Suite 735
Norcross, GA 30093

February 12, 1999

P.O. No. 24619

Attention: Ms. Paula MacLaren

Report No. 104092-3**Sample Description**Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-3 (Drum 3),
01/26/99, 13:48, received 01/29/99**RESULTS**

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(mg/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/kg)</u>
Acetone.....	BDL	100
Acrolein.....	BDL	50
Acrylonitrile.....	BDL	50
Benzene.....	BDL	2
Bromobenzene.....	BDL	10
Bromochloromethane.....	BDL	10
Bromodichloromethane.....	BDL	10
Bromoform.....	BDL	10
Bromomethane.....	BDL	10
2-Butanone.....	BDL	10
n-Butylbenzene.....	BDL	100
sec-Butylbenzene.....	BDL	10
tert-Butylbenzene.....	BDL	10
Carbon disulfide.....	BDL	10
Carbon tetrachloride.....	BDL	2
Chlorobenzene.....	BDL	10
Chloroethane.....	BDL	5
Chloroform.....	BDL	2
Chloromethane.....	BDL	10
2-Chlorotoluene.....	BDL	10
4-Chlorotoluene.....	BDL	10
2-Chloroethylvinyl ether.....	BDL	10

BDL - Below Detection Limit

Tetra Tech Inc.
Page 2 of 5

February 12, 1999
Report No. 104092-3

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-3 (Drum 3),
01/26/99, 13:48, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(mg/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/kg)</u>
Dibromochloromethane.....	BDL	10
1,2-Dibromo-3-chloropropane.....	BDL	10
1,2-Dibromoethane.....	BDL	10
Dibromomethane.....	BDL	10
1,2-Dichlorobenzene.....	BDL	10
1,3-Dichlorobenzene.....	BDL	10
1,4-Dichlorobenzene.....	BDL	10
Dichlorodifluoromethane.....	BDL	10
1,1-Dichloroethane.....	BDL	2
1,2-Dichloroethane.....	BDL	2
1,1-Dichloroethene.....	BDL	2
cis-1,2-Dichloroethene.....	BDL	2
trans-1,2-Dichloroethene.....	BDL	2
1,2-Dichloropropane.....	BDL	2
1,3-Dichloropropane.....	BDL	2
2,2-Dichloropropane.....	BDL	10
1,1-Dichloropropene.....	BDL	10
cis-1,3-Dichloropropene.....	BDL	2
trans-1,3-Dichloropropene.....	BDL	2
Ethylbenzene.....	BDL	2
Hexachlorobutadiene.....	BDL	10
2-Hexanone.....	BDL	10
Isopropylbenzene.....	BDL	10
p-Isopropyltoluene.....	BDL	10
Methylene chloride.....	BDL	5
4-Methyl-2-pentanone.....	BDL	10
Naphthalene.....	BDL	10
n-Propylbenzene.....	BDL	10
Styrene.....	BDL	5
1,1,1,2-Tetrachloroethane.....	BDL	2
1,1,2,2-Tetrachloroethane.....	BDL	2
Tetrachloroethene.....	BDL	2
Toluene.....	BDL	2
1,2,3-Trichlorobenzene.....	BDL	10
1,2,4-Trichlorobenzene.....	BDL	10
1,1,1-Trichloroethane.....	BDL	2
1,1,2-Trichloroethane.....	BDL	2
Trichloroethene.....	BDL	2

BDL - Below Detection Limit

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-3

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-3 (Drum 3),
01/26/99, 13:48, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(mg/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/kg)</u>
Trichlorofluoromethane.....	BDL	10
1,2,3-Trichloropropane.....	BDL	10
1,2,4-Trimethylbenzene.....	BDL	10
1,3,5-Trimethylbenzene.....	BDL	10
Vinyl acetate.....	BDL	10
Vinyl chloride.....	BDL	10
m+p-Xylene.....	BDL	10
p-Xylene.....	BDL	5
Xylenes (total).....	BDL	5
<u>Acid Extractable Organics (EPA 8270C)</u>	<u>(mg/l)</u>	<u>(mg/l)</u>
1-Chloro-3-methylphenol.....	BDL	1000
2-Chlorophenol.....	BDL	1000
2,4-Dichlorophenol.....	BDL	1000
2,4-Dimethylphenol.....	BDL	1000
2,6-Dinitro-2-methylphenol.....	BDL	1000
2,4-Dinitrophenol.....	BDL	1000
2-Methylphenol.....	BDL	1000
3-Methylphenol.....	BDL	1000
3-Nitrophenol.....	BDL	1000
4-Nitrophenol.....	BDL	1000
Pentachlorophenol.....	BDL	1000
Phenol.....	BDL	1000
2,4,5-Trichlorophenol.....	BDL	1000
2,4,6-Trichlorophenol.....	BDL	1000
<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>(mg/l)</u>	<u>(mg/l)</u>
Benaphthene.....	BDL	1000
Benaphthylene.....	BDL	1000
Anthracene.....	BDL	1000
Benzoic Acid.....	BDL	1000
Benzo(a)anthracene.....	BDL	1000
Benzo(b)fluoranthene.....	BDL	1000
Benzo(k)fluoranthene.....	BDL	1000
Benzo(ghi)perylene.....	BDL	1000
Benzo(a)pyrene.....	BDL	1000

BDL - Below Detection Limit

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-3

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-3 (Drum 3),
01/26/99, 13:48, received 01/29/99

RESULTS

<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>Result (mg/l)</u>	<u>Detection Limit (mg/l)</u>
Benzyl Alcohol.....	BDL	1000
Bis(2-chloroethoxy)methane.....	BDL	1000
Bis(2-chloroethyl)ether.....	BDL	1000
Bis(2-chloroisopropyl)ether.....	BDL	1000
Bis(2-ethylhexyl)phthalate.....	BDL	1000
4-Bromophenyl phenyl ether.....	BDL	1000
Benzyl butyl phthalate.....	BDL	1000
4-Chloroaniline.....	BDL	1000
2-Chloronaphthalene.....	BDL	1000
4-Chlorophenyl phenyl ether.....	BDL	1000
Chrysene.....	BDL	1000
Dibenzo(a,h)anthracene.....	BDL	1000
Dibenzofuran.....	BDL	1000
Di-n-butylphthalate.....	BDL	1000
1,3-Dichlorobenzene.....	BDL	1000
1,4-Dichlorobenzene.....	BDL	1000
1,2-Dichlorobenzene.....	BDL	1000
3,3'-Dichlorobenzidine.....	BDL	1000
Diethylphthalate.....	BDL	1000
Dimethylphthalate.....	BDL	1000
2,4-Dinitrotoluene.....	BDL	1000
2,6-Dinitrotoluene.....	BDL	1000
Di-n-octylphthalate.....	BDL	1000
Fluoranthene.....	BDL	1000
Fluorene.....	BDL	1000
Hexachlorobenzene.....	BDL	1000
Hexachlorobutadiene.....	BDL	1000
Hexachlorocyclopentadiene.....	BDL	1000
Hexachloroethane.....	BDL	1000
Indeno(1,2,3-cd)pyrene.....	BDL	1000
Isophorone.....	BDL	1000
2-Methylnaphthalene.....	1200	1000
Naphthalene.....	BDL	1000
2-Nitroaniline.....	BDL	1000
3-Nitroaniline.....	BDL	1000
4-Nitroaniline.....	BDL	1000
Nitrobenzene.....	BDL	1000
N-Nitrosodimethylamine.....	BDL	1000

BDL - Below Detection Limit

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Tetra Tech Inc.
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February 12, 1999
Report No. 104092-3

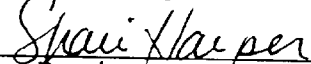
Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-3 (Drum 3),
01/26/99, 13:48, received 01/29/99


RESULTS

<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>Result</u> <u>(mg/l)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/l)</u>
N-Nitrosodiphenylamine.....	BDL	1000
N-Nitrosodi-n-propylamine.....	BDL	1000
Phenanthrene.....	1500	1000
Pyrene.....	BDL	1000
1,2,4-Trichlorobenzene.....	BDL	1000

BDL - Below Detection Limit

Respectfully submitted,


Project Manager


Quality Assurance

ASI**ANALYTICAL SERVICES, INC.**

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201**LABORATORY REPORT**Tetra Tech Inc.
1750 Corporate Drive
Suite 735
Norcross, GA 30093

February 12, 1999

P.O. No. 24619

Attention: Ms. Paula MacLaren

Report No. 104092-4**Sample Description**Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-4 (Drum 4),
01/26/99, 14:09, received 01/29/99**RESULTS**

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(mg/l)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/l)</u>
Acetone.....	BDL	100
Acrolein.....	BDL	50
Acrylonitrile.....	BDL	50
Benzene.....	BDL	2
Bromobenzene.....	BDL	10
Bromochloromethane.....	BDL	10
Bromodichloromethane.....	BDL	10
Bromoform.....	BDL	10
Bromomethane.....	BDL	10
2-Butanone.....	BDL	100
n-Butylbenzene.....	BDL	10
sec-Butylbenzene.....	BDL	10
tert-Butylbenzene.....	BDL	10
Carbon disulfide.....	BDL	10
Carbon tetrachloride.....	BDL	2
Chlorobenzene.....	BDL	10
Chloroethane.....	BDL	5
Chloroform.....	BDL	2
Chloromethane.....	BDL	10
p-Chlorotoluene.....	BDL	10
m-Chlorotoluene.....	BDL	10
o-Chlorotoluene.....	BDL	10
Chloroethylvinyl ether.....	BDL	10

DL - Below Detection Limit

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-4

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-4 (Drum 4),
01/26/99, 14:09, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(mg/l)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/l)</u>
Dibromochloromethane.....	BDL	10
1,2-Dibromo-3-chloropropane.....	BDL	10
1,2-Dibromoethane.....	BDL	10
Dibromomethane.....	BDL	10
1,2-Dichlorobenzene.....	BDL	10
1,3-Dichlorobenzene.....	BDL	10
1,4-Dichlorobenzene.....	BDL	10
Dichlorodifluoromethane.....	BDL	10
1,1-Dichloroethane.....	BDL	2
1,2-Dichloroethane.....	BDL	2
1,1-Dichloroethene.....	BDL	2
cis-1,2-Dichloroethene.....	BDL	2
trans-1,2-Dichloroethene.....	BDL	2
1,2-Dichloropropane.....	BDL	2
1,3-Dichloropropane.....	BDL	2
2,2-Dichloropropane.....	BDL	10
1,1-Dichloropropene.....	BDL	10
cis-1,3-Dichloropropene.....	BDL	2
trans-1,3-Dichloropropene.....	BDL	2
Ethylbenzene.....	BDL	2
Hexachlorobutadiene.....	BDL	10
2-Hexanone.....	BDL	10
Isopropylbenzene.....	BDL	10
p-Isopropyltoluene.....	BDL	10
Methylene chloride.....	BDL	5
4-Methyl-2-pentanone.....	BDL	10
Naphthalene.....	BDL	10
n-Propylbenzene.....	BDL	10
Styrene.....	BDL	5
1,1,1,2-Tetrachloroethane.....	BDL	2
1,1,2,2-Tetrachloroethane.....	BDL	2
Tetrachloroethene.....	BDL	2
Toluene.....	BDL	2
1,2,3-Trichlorobenzene.....	BDL	10
1,2,4-Trichlorobenzene.....	BDL	10
1,1,1-Trichloroethane.....	BDL	2
1,1,2-Trichloroethane.....	BDL	2
Trichloroethene.....	BDL	2

BDL - Below Detection Limit

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-4

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-4 (Drum 4),
01/26/99, 14:09, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(mg/l)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/l)</u>
Trichlorofluoromethane.....	BDL	10
1,2,3-Trichloropropane.....	BDL	10
1,2,4-Trimethylbenzene.....	BDL	10
1,3,5-Trimethylbenzene.....	BDL	10
Vinyl acetate.....	BDL	10
Vinyl chloride.....	BDL	10
m+p-Xylene.....	BDL	10
o-Xylene.....	BDL	5
Xylenes (total).....	BDL	5
	BDL	5
<u>Acid Extractable Organics (EPA 8270C)</u>	<u>(mg/l)</u>	<u>(mg/l)</u>
4-Chloro-3-methylphenol.....	BDL	1000
2-Chlorophenol.....	BDL	1000
2,4-Dichlorophenol.....	BDL	1000
2,4-Dimethylphenol.....	BDL	1000
2,6-Dinitro-2-methylphenol.....	BDL	1000
2,4-Dinitrophenol.....	BDL	1000
2-Methylphenol.....	BDL	1000
4-Methylphenol.....	BDL	1000
3-Nitrophenol.....	BDL	1000
4-Nitrophenol.....	BDL	1000
pentachlorophenol.....	BDL	1000
phenol.....	BDL	1000
2,4,5-Trichlorophenol.....	BDL	1000
2,4,6-Trichlorophenol.....	BDL	1000
	BDL	1000
<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>(mg/l)</u>	<u>(mg/l)</u>
benzophenanthrene.....	BDL	1000
benzophenanthylene.....	BDL	1000
anthracene.....	BDL	1000
benzoic Acid.....	BDL	1000
benzo(a)anthracene.....	BDL	1000
benzo(b)fluoranthene.....	BDL	1000
benzo(k)fluoranthene.....	BDL	1000
benzo(ghi)perylene.....	BDL	1000
benzo(a)pyrene.....	BDL	1000
	BDL	1000

BDL - Below Detection Limit

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-4

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-4 (Drum 4),
01/26/99, 14:09, received 01/29/99

RESULTS

<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>Result (mg/l)</u>	<u>Detection Limit (mg/l)</u>
Benzyl Alcohol.....	BDL	1000
Bis(2-chloroethoxy)methane.....	BDL	1000
Bis(2-chloroethyl)ether.....	BDL	1000
Bis(2-chloroisopropyl)ether.....	BDL	1000
Bis(2-ethylhexyl)phthalate.....	BDL	1000
4-Bromophenyl phenyl ether.....	BDL	1000
Benzyl butyl phthalate.....	BDL	1000
4-Chloroaniline.....	BDL	1000
2-Chloronaphthalene.....	BDL	1000
4-Chlorophenyl phenyl ether.....	BDL	1000
Chrysene.....	BDL	1000
Dibenzo(a,h)anthracene.....	BDL	1000
Dibenzofuran.....	BDL	1000
Di-n-butylphthalate.....	BDL	1000
1,3-Dichlorobenzene.....	BDL	1000
1,4-Dichlorobenzene.....	BDL	1000
1,2-Dichlorobenzene.....	BDL	1000
3,3'-Dichlorobenzidine.....	BDL	1000
Diethylphthalate.....	BDL	1000
Dimethylphthalate.....	BDL	1000
2,4-Dinitrotoluene.....	BDL	1000
2,6-Dinitrotoluene.....	BDL	1000
Di-n-octylphthalate.....	BDL	1000
Fluoranthene.....	BDL	1000
Fluorene.....	BDL	1000
Hexachlorobenzene.....	BDL	1000
Hexachlorobutadiene.....	BDL	1000
Hexachlorocyclopentadiene.....	BDL	1000
Hexachloroethane.....	BDL	1000
Indeno(1,2,3-cd)pyrene.....	BDL	1000
Isophorone.....	BDL	1000
1-Methylnaphthalene.....	BDL	1000
1-Naphthalene.....	BDL	1000
1-Nitroaniline.....	BDL	1000
2-Nitroaniline.....	BDL	1000
3-Nitroaniline.....	BDL	1000
4-Nitrobenzene.....	BDL	1000
4-Nitrosodimethylamine.....	BDL	1000

DL - Below Detection Limit

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Tetra Tech Inc.
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February 12, 1999
Report No. 104092-4

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-4 (Drum 4),
01/26/99, 14:09, received 01/29/99

RESULTS

<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>Result (mg/l)</u>	<u>Detection Limit (mg/l)</u>
Nitrosodiphenylamine.....	BDL	1000
Nitrosodi-n-propylamine.....	BDL	1000
phenanthrene.....	BDL	1000
ylene.....	BDL	1000
,2,4-Trichlorobenzene.....	BDL	1000

DL - Below Detection Limit

Respectfully submitted,

Shari Harper
Project Manager

J. M. [Signature]
Quality Assurance

ASI**ANALYTICAL SERVICES, INC.**

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

2 2 0036

LABORATORY REPORTTetra Tech Inc.
1750 Corporate Drive
Suite 735
Norcross, GA 30093

February 12, 1999

P.O. No. 24619

Attention: Ms. Paula MacLaren

Report No. 104092-5**Sample Description**Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-5 (Drum 5),
01/26/99, 14:20, received 01/29/99**RESULTS**

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(mg/l)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/l)</u>
Acetone.....	BDL	100
Acrolein.....	BDL	50
Acrylonitrile.....	BDL	50
Benzene.....	BDL	2
Bromobenzene.....	BDL	10
Bromochloromethane.....	BDL	10
Bromodichloromethane.....	BDL	10
Bromoform.....	BDL	10
Bromomethane.....	BDL	10
-Butanone.....	BDL	10
-Butylbenzene.....	BDL	100
ec-Butylbenzene.....	BDL	10
ert-Butylbenzene.....	BDL	10
arbon disulfide.....	BDL	10
arbon tetrachloride.....	BDL	10
hlorobenzene.....	BDL	2
hloroethane.....	BDL	10
hloroform.....	BDL	5
hloromethane.....	BDL	2
-Chlorotoluene.....	BDL	10
-Chlorotoluene.....	BDL	10
-Chloroethylvinyl ether.....	BDL	10

DL - Below Detection Limit

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-5

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-5 (Drum 5),
01/26/99, 14:20, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(mg/l)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/l)</u>
Dibromochloromethane.....	BDL	10
1,2-Dibromo-3-chloropropane.....	BDL	10
1,2-Dibromoethane.....	BDL	10
Dibromomethane.....	BDL	10
1,2-Dichlorobenzene.....	BDL	10
1,3-Dichlorobenzene.....	BDL	10
1,4-Dichlorobenzene.....	BDL	10
Dichlorodifluoromethane.....	BDL	10
1,1-Dichloroethane.....	BDL	2
1,2-Dichloroethane.....	BDL	2
1,1-Dichloroethene.....	BDL	2
cis-1,2-Dichloroethene.....	BDL	2
trans-1,2-Dichloroethene.....	BDL	2
1,2-Dichloropropane.....	BDL	2
1,3-Dichloropropane.....	BDL	2
2,2-Dichloropropane.....	BDL	10
1,1-Dichloropropene.....	BDL	10
cis-1,3-Dichloropropene.....	BDL	2
trans-1,3-Dichloropropene.....	BDL	2
Ethylbenzene.....	BDL	2
Hexachlorobutadiene.....	BDL	10
2-Hexanone.....	BDL	10
Isopropylbenzene.....	BDL	10
p-Isopropyloluene.....	BDL	10
Methylene chloride.....	BDL	10
4-Methyl-2-pentanone.....	BDL	5
Naphthalene.....	BDL	10
n-Propylbenzene.....	23	10
Styrene.....	BDL	10
1,1,1,2-Tetrachloroethane.....	BDL	5
1,1,2,2-Tetrachloroethane.....	BDL	2
Tetrachloroethene.....	BDL	2
oluene.....	BDL	2
1,2,3-Trichlorobenzene.....	BDL	2
1,2,4-Trichlorobenzene.....	BDL	10
1,1,1-Trichloroethane.....	BDL	10
1,1,2-Trichloroethane.....	BDL	2
Trichloroethene.....	BDL	2
	BDL	2

DL - Below Detection Limit

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-5

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-5 (Drum 5),
01/26/99, 14:20, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(mg/l)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/l)</u>
Trichlorofluoromethane.....	BDL	10
1,2,3-Trichloropropane.....	BDL	10
1,2,4-Trimethylbenzene.....	BDL	10
1,3,5-Trimethylbenzene.....	BDL	10
Vinyl acetate.....	BDL	10
Vinyl chloride.....	BDL	10
m+p-Xylene.....	BDL	10
o-Xylene.....	BDL	5
Xylenes (total).....	BDL	5
<u>Acid Extractable Organics (EPA 8270C)</u>	<u>(mg/l)</u>	<u>(mg/l)</u>
4-Chloro-3-methylphenol.....	BDL	1000
2-Chlorophenol.....	BDL	1000
2,4-Dichlorophenol.....	BDL	1000
2,4-Dimethylphenol.....	BDL	1000
4,6-Dinitro-2-methylphenol.....	BDL	1000
2,4-Dinitrophenol.....	BDL	1000
2-Methylphenol.....	BDL	1000
4-Methylphenol.....	BDL	1000
2-Nitrophenol.....	BDL	1000
4-Nitrophenol.....	BDL	1000
Pentachlorophenol.....	BDL	1000
Phenol.....	BDL	1000
2,4,5-Trichlorophenol.....	BDL	1000
2,4,6-Trichlorophenol.....	BDL	1000
<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>(mg/l)</u>	<u>(mg/l)</u>
acenaphthene.....	BDL	1000
acenaphthylene.....	BDL	1000
anthracene.....	BDL	1000
benzoic Acid.....	BDL	1000
benzo(a)anthracene.....	BDL	1000
benzo(b)fluoranthene.....	BDL	1000
benzo(k)fluoranthene.....	BDL	1000
benzo(ghi)perylene.....	BDL	1000
benzo(a)pyrene.....	BDL	1000

DL - Below Detection Limit

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-5

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-5 (Drum 5),
01/26/99, 14:20, received 01/29/99

RESULTS

<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>Result (mg/l)</u>	<u>Detection Limit (mg/l)</u>
Benzyl Alcohol.....	BDL	1000
Bis(2-chloroethoxy)methane.....	BDL	1000
Bis(2-chloroethyl)ether.....	BDL	1000
Bis(2-chloroisopropyl)ether.....	BDL	1000
Bis(2-ethylhexyl)phthalate.....	BDL	1000
4-Bromophenyl phenyl ether.....	BDL	1000
Benzyl butyl phthalate.....	BDL	1000
4-Chloroaniline.....	BDL	1000
2-Chloronaphthalene.....	BDL	1000
4-Chlorophenyl phenyl ether.....	BDL	1000
Chrysene.....	BDL	1000
Dibenzo(a,h)anthracene.....	BDL	1000
Dibenzofuran.....	BDL	1000
Di-n-butylphthalate.....	BDL	1000
1,3-Dichlorobenzene.....	BDL	1000
1,4-Dichlorobenzene.....	BDL	1000
1,2-Dichlorobenzene.....	BDL	1000
1,3'-Dichlorobenzidine.....	BDL	1000
Diethylphthalate.....	BDL	1000
Dimethylphthalate.....	BDL	1000
2,4-Dinitrotoluene.....	BDL	1000
2,6-Dinitrotoluene.....	BDL	1000
Di-n-octylphthalate.....	BDL	1000
Fluoranthene.....	BDL	1000
Fluorene.....	BDL	1000
Hexachlorobenzene.....	BDL	1000
Hexachlorobutadiene.....	BDL	1000
Hexachlorocyclopentadiene.....	BDL	1000
Hexachloroethane.....	BDL	1000
Indeno(1,2,3-cd)pyrene.....	BDL	1000
Isophorone.....	BDL	1000
1-Methylnaphthalene.....	BDL	1000
Naphthalene.....	BDL	1000
Nitroaniline.....	BDL	1000
Nitroaniline.....	BDL	1000
Nitroaniline.....	BDL	1000
Nitrobenzene.....	BDL	1000
Nitrosodimethylamine.....	BDL	1000

BDL - Below Detection Limit

Tetra Tech Inc.
Page 5 of 5

February 12, 1999
Report No. 104092-5

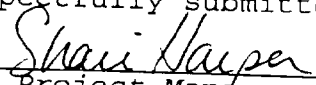
Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-5 (Drum 5),
01/26/99, 14:20, received 01/29/99

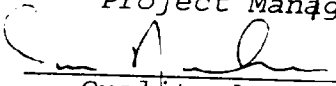
RESULTS

<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>Result</u> <u>(mg/l)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/l)</u>
N-Nitrosodiphenylamine.....	BDL	1000
N-Nitrosodi-n-propylamine.....	BDL	1000
Phenanthrene.....	BDL	1000
Pyrene.....	BDL	1000
1,2,4-Trichlorobenzene.....	BDL	1000

BDL - Below Detection Limit

Respectfully submitted,


Project Manager


Quality Assurance

ASI**ANALYTICAL SERVICES, INC.**

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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1750 Corporate Drive
Suite 735
Norcross, GA 30093

February 12, 1999

P.O. No. 24619

Attention: Ms. Paula MacLaren

Report No. 104092-6**Sample Description**Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-6 (Drum 6),
01/26/99, 14:40, received 01/29/99**RESULTS**

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(mg/l)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/l)</u>
Acetone.....	BDL	100
Acrolein.....	BDL	50
Acrylonitrile.....	BDL	50
Azene.....	BDL	2
Bromobenzene.....	BDL	10
Bromochloromethane.....	BDL	10
Bromodichloromethane.....	BDL	10
Bromoform.....	BDL	10
Bromomethane.....	BDL	10
tert-Butanone.....	BDL	10
tert-Butylbenzene.....	BDL	100
sec-Butylbenzene.....	BDL	10
tert-Butylbenzene.....	BDL	10
Carbon disulfide.....	BDL	10
Carbon tetrachloride.....	BDL	10
Chlorobenzene.....	BDL	2
Chloroethane.....	BDL	10
Chloroform.....	BDL	5
Chloromethane.....	BDL	2
Chlorotoluene.....	BDL	10
Chlorotoluene.....	BDL	10
Chloroethylvinyl ether.....	BDL	10
	BDL	10

BDL - Below Detection Limit

Tetra Tech Inc.
Page 2 of 5

February 12, 1999
Report No. 104092-6

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-6 (Drum 6),
01/26/99, 14:40, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(mg/l)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/l)</u>
Dibromochloromethane.....	BDL	10
1,2-Dibromo-3-chloropropane.....	BDL	10
1,2-Dibromoethane.....	BDL	10
Dibromomethane.....	BDL	10
1,2-Dichlorobenzene.....	BDL	10
1,3-Dichlorobenzene.....	BDL	10
1,4-Dichlorobenzene.....	BDL	10
Dichlorodifluoromethane.....	BDL	10
1,1-Dichloroethane.....	BDL	2
1,2-Dichloroethane.....	BDL	2
1,1-Dichloroethene.....	BDL	2
cis-1,2-Dichloroethene.....	BDL	2
trans-1,2-Dichloroethene.....	BDL	2
1,2-Dichloropropane.....	BDL	2
1,3-Dichloropropane.....	BDL	2
2,2-Dichloropropane.....	BDL	10
1,1-Dichloropropene.....	BDL	10
cis-1,3-Dichloropropene.....	BDL	2
trans-1,3-Dichloropropene.....	BDL	2
Ethylbenzene.....	BDL	2
Hexachlorobutadiene.....	BDL	10
2-Hexanone.....	BDL	10
Isopropylbenzene.....	BDL	10
p-Isopropyltoluene.....	BDL	10
Methylene chloride.....	BDL	5
n-Methyl-2-pentanone.....	BDL	10
Naphthalene.....	BDL	10
n-Propylbenzene.....	BDL	10
styrene.....	BDL	5
1,1,1,2-Tetrachloroethane.....	BDL	2
1,1,2,2-Tetrachloroethane.....	BDL	2
tetrachloroethene.....	BDL	2
toluene.....	BDL	2
1,2,3-Trichlorobenzene.....	BDL	10
1,2,4-Trichlorobenzene.....	BDL	10
1,1,1-Trichloroethane.....	BDL	2
1,1,2-Trichloroethane.....	BDL	2
trichloroethene.....	BDL	2

DL - Below Detection Limit

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-6

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-6 (Drum 6),
01/26/99, 14:40, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(mg/l)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/l)</u>
Trichlorofluoromethane.....	BDL	10
1,2,3-Trichloropropane.....	BDL	10
1,2,4-Trimethylbenzene.....	BDL	10
1,3,5-Trimethylbenzene.....	BDL	10
Vinyl acetate.....	BDL	10
Vinyl chloride.....	BDL	10
m+p-Xylene.....	BDL	5
o-Xylene.....	BDL	5
Xylenes (total).....	BDL	5
<u>Acid Extractable Organics (EPA 8270C)</u>	<u>(mg/l)</u>	<u>(mg/l)</u>
4-Chloro-3-methylphenol.....	BDL	1000
2-Chlorophenol.....	BDL	1000
2,4-Dichlorophenol.....	BDL	1000
2,4-Dimethylphenol.....	BDL	1000
4,6-Dinitro-2-methylphenol.....	BDL	1000
2,4-Dinitrophenol.....	BDL	1000
2-Methylphenol.....	BDL	1000
4-Methylphenol.....	BDL	1000
2-Nitrophenol.....	BDL	1000
4-Nitrophenol.....	BDL	1000
Pentachlorophenol.....	BDL	1000
Phenol.....	BDL	1000
2,4,5-Trichlorophenol.....	BDL	1000
2,4,6-Trichlorophenol.....	BDL	1000
<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>(mg/l)</u>	<u>(mg/l)</u>
Acenaphthene.....	BDL	1000
Acenaphthylene.....	BDL	1000
Anthracene.....	BDL	1000
Benzoic Acid.....	BDL	1000
Benzo(a)anthracene.....	BDL	1000
Benzo(b)fluoranthene.....	BDL	1000
Benzo(k)fluoranthene.....	BDL	1000
Benzo(ghi)perylene.....	BDL	1000
Benzo(a)pyrene.....	BDL	1000

DL - Below Detection Limit

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-6

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-6 (Drum 6),
01/26/99, 14:40, received 01/29/99

RESULTS

<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>Result (mg/l)</u>	<u>Detection Limit (mg/l)</u>
Benzyl Alcohol.....	BDL	1000
Bis(2-chloroethoxy)methane.....	BDL	1000
Bis(2-chloroethyl)ether.....	BDL	1000
Bis(2-chloroisopropyl)ether.....	BDL	1000
Bis(2-ethylhexyl)phthalate.....	BDL	1000
4-Bromophenyl phenyl ether.....	BDL	1000
Benzyl butyl phthalate.....	BDL	1000
4-Chloroaniline.....	BDL	1000
2-Chloronaphthalene.....	BDL	1000
4-Chlorophenyl phenyl ether.....	BDL	1000
Chrysene.....	BDL	1000
Dibenzo(a,h)anthracene.....	BDL	1000
Dibenzofuran.....	BDL	1000
Di-n-butylphthalate.....	BDL	1000
1,3-Dichlorobenzene.....	BDL	1000
1,4-Dichlorobenzene.....	BDL	1000
1,2-Dichlorobenzene.....	BDL	1000
3,3'-Dichlorobenzidine.....	BDL	1000
Diethylphthalate.....	BDL	1000
Dimethylphthalate.....	BDL	1000
2,4-Dinitrotoluene.....	BDL	1000
2,6-Dinitrotoluene.....	BDL	1000
Di-n-octylphthalate.....	BDL	1000
Fluoranthene.....	BDL	1000
Fluorene.....	BDL	1000
Hexachlorobenzene.....	BDL	1000
Hexachlorobutadiene.....	BDL	1000
Hexachlorocyclopentadiene.....	BDL	1000
Hexachloroethane.....	BDL	1000
Indeno(1,2,3-cd)pyrene.....	BDL	1000
Isophorone.....	BDL	1000
1-Methylnaphthalene.....	BDL	1000
1-Nitroaniline.....	BDL	1000
2-Nitroaniline.....	BDL	1000
3-Nitroaniline.....	BDL	1000
1-Nitrobenzene.....	BDL	1000
1-Nitrosodimethylamine.....	BDL	1000

BDL - Below Detection Limit

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Tetra Tech Inc.
Page 5 of 5

February 12, 1999
Report No. 104092-6

Oil, grab, Industrial Pollution Control, Project #990101, IPC-DR-6 (Drum 6),
01/26/99, 14:40, received 01/29/99

RESULTS

<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>Result</u> <u>(mg/l)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/l)</u>
N-Nitrosodiphenylamine.....	BDL	1000
N-Nitrosodi-n-propylamine.....	BDL	1000
Phenanthrene.....	BDL	1000
Pyrene.....	BDL	1000
1,2,4-Trichlorobenzene.....	BDL	1000

BDL - Below Detection Limit

Respectfully submitted,

Shari Harper
Project Manager

J. J. [Signature]
Quality Assurance

ASI**ANALYTICAL SERVICES, INC.**

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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February 12, 1999

P.O. No. 24619

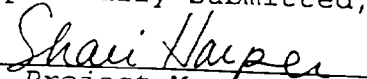
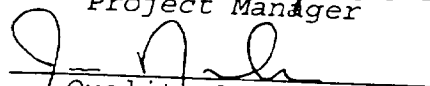
Attention: Ms. Paula MacLaren

Report No. 104092-7Sample DescriptionOil, Industrial Pollution Control, Project #990101, IPC-TK-1A(Tank 1A),
14:32, received 01/29/99RESULTS

	<u>Result</u>	<u>Detection Limit</u>
British Thermal Units (BTU/lb) (ASTM D 240)...	5600	-
Ignitability (^o F) (EPA 1010).....	134	70
Chloride (Cl) (mg/l) (EPA 6500).....	1200	10
Fluoride (Fl) (mg/l) (EPA 6500).....	13	10
<u>PCB's (EPA 8082)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
PCB 1016.....	BDL	5000
PCB 1221.....	BDL	5000
PCB 1232.....	BDL	5000
PCB 1242.....	BDL	5000
PCB 1248.....	BDL	5000
PCB 1254.....	BDL	5000
PCB 1260.....	BDL	5000

DL - Below Detection Limit

Respectfully submitted,


Project Manager
Quality Assurance

A Unit of American Analytical Services, Inc.

ASI**ANALYTICAL SERVICES, INC.**

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P.O. No. 24619

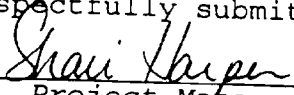
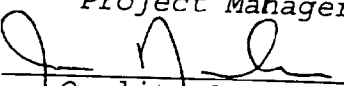
Attention: Ms. Paula MacLaren

Report No. 104092-8**Sample Description**Oil, Industrial Pollution Control, Project #990101, IPC-TK-1B(Tank 1B),
14:30, received 01/29/99**RESULTS**

	<u>Result</u>	<u>Detection Limit</u>
British Thermal Units (BTU/lb) (ASTM D 240)...	6600	-
Ignitability (^o F) (EPA 1010).....	>212	70
Chloride (Cl) (mg/l) (EPA 6500).....	1300	10
Fluoride (Fl) (mg/l) (EPA 6500).....	40	10
<u>PCB's (EPA 8082)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
PCB 1016.....	BDL	5000
PCB 1221.....	BDL	5000
PCB 1232.....	BDL	5000
PCB 1242.....	BDL	5000
PCB 1248.....	BDL	5000
PCB 1254.....	BDL	5000
PCB 1260.....	BDL	5000

DL - Below Detection Limit

Respectfully submitted,


Project Manager
Quality Assurance

A Unit of American Analytical Services, Inc.

ASI

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ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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Norcross, GA 30093

February 12, 1999

P.O. No. 24619Report No. 104092-9

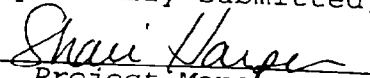
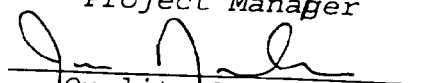
Attention: Ms. Paula MacLaren

Sample DescriptionOil, Industrial Pollution Control, Project #990101, IPC-TK-2B (Tank 2B),
14:47, received 01/29/99**RESULTS**

	<u>Result</u>	<u>Detection Limit</u>
British Thermal Units (BTU/lb) (ASTM D 240)...	17800	-
Ignitability (°F) (EPA 1010).....	>212	70
Chloride (Cl) (mg/l) (EPA 6500).....	1600	100
Fluoride (Fl) (mg/l) (EPA 6500).....	BDL	10
<u>CB's (EPA 8082)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
CB 1016.....	BDL	5000
CB 1221.....	BDL	5000
CB 1232.....	BDL	5000
CB 1242.....	BDL	5000
CB 1248.....	BDL	5000
CB 1254.....	BDL	5000
CB 1260.....	BDL	5000

BDL - Below Detection Limit

Respectfully submitted,


Project Manager
Quality Assurance

A Unit of American Analytical Services, Inc.

ASI**ANALYTICAL SERVICES, INC.**

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Norcross, GA 30093

February 12, 1999

P.O. No. 24619

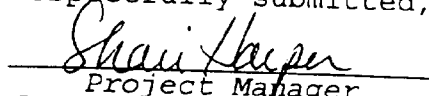
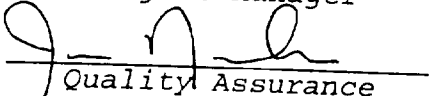
Attention: Ms. Paula MacLaren

Report No. 104092-10**Sample Description**Oil, Industrial Pollution Control, Project #990101, IPC-TK-2C(Tank 2C),
14:55, received 01/29/99**RESULTS**

	<u>Result</u>	<u>Detection Limit</u>
British Thermal Units (BTU/lb) (ASTM D 240)...	13700	-
Ignitability (^o F) (EPA 1010).....	174	70
Chloride (Cl) (mg/l) (EPA 6500).....	1900	100
Fluoride (Fl) (mg/l) (EPA 6500).....	BDL	10
<u>PCB's (EPA 8082)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
CB 1016.....	BDL	5000
CB 1221.....	BDL	5000
CB 1232.....	BDL	5000
CB 1242.....	BDL	5000
CB 1248.....	BDL	5000
CB 1254.....	BDL	5000
CB 1260.....	BDL	5000

DL - Below Detection Limit

Respectfully submitted,


Project Manager
Quality Assurance

A Unit of American Analytical Services, Inc.

ASI**ANALYTICAL SERVICES, INC.**

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February 12, 1999

P.O. No. 24619Report No. 104092-11

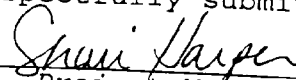

Attention: Ms. Paula MacLaren

Sample DescriptionOil, Industrial Pollution Control, Project #990101, IPC-TK-3A(Tank 3A),
15:30, received 01/29/99**RESULTS**

	<u>Result</u>	<u>Detection Limit</u>
British Thermal Units (BTU/lb) (ASTM D 240) ...	19800	-
Ignitability (^o F) (EPA 1010)	>212	70
Chloride (Cl) (mg/l) (EPA 6500)	3200	100
Fluoride (Fl) (mg/l) (EPA 6500)	BDL	10
<u>PCB's (EPA 8082)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
PCB 1016	BDL	5000
PCB 1221	BDL	5000
PCB 1232	BDL	5000
PCB 1242	BDL	5000
PCB 1248	BDL	5000
PCB 1254	BDL	5000
PCB 1260	BDL	5000

DL - Below Detection Limit

Respectfully submitted,


Project Manager
Quality Assurance

A Unit of American Analytical Services, Inc.

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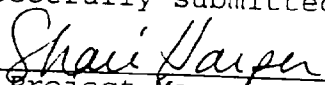
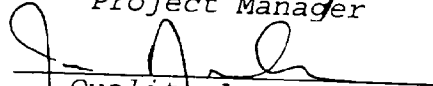
Attention: Ms. Paula MacLaren

Report No. 104092-12Sample DescriptionOil, Industrial Pollution Control, Project #990101, IPC-TK-4A(Tank 4A),
16:00, received 01/29/99RESULTS

	<u>Result</u>	<u>Detection Limit</u>
British Thermal Units (BTU/lb) (ASTM D 240)...	19800	-
Ignitability (^o F) (EPA 1010).....	>212	70
Chloride (Cl) (mg/l) (EPA 6500).....	2200	100
Fluoride (Fl) (mg/l) (EPA 6500).....	BDL	10
<u>PCB's (EPA 8082)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
PCB 1016.....	BDL	5000
PCB 1221.....	BDL	5000
PCB 1232.....	BDL	5000
PCB 1242.....	BDL	5000
PCB 1248.....	BDL	5000
PCB 1254.....	BDL	5000
PCB 1260.....	BDL	5000

BDL - Below Detection Limit

Respectfully submitted,


Project Manager
Quality Assurance

A Unit of American Analytical Services, Inc.

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February 12, 1999

P.O. No. 24619Report No. 104092-13

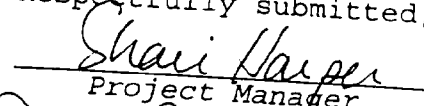
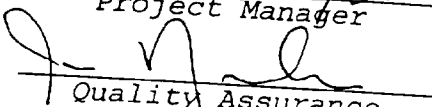
Attention: Ms. Paula MacLaren

Sample DescriptionOil, Industrial Pollution Control, Project #990101, IPC-TK-5A(Tank 5A),
6:30, received 01/29/99**RESULTS**

	<u>Result</u>	<u>Detection Limit</u>
British Thermal Units (BTU/lb) (ASTM D 240)...	10300	-
Ignitability (°F) (EPA 1010).....	168	70
Chloride (Cl) (mg/l) (EPA 6500).....	4400	20
Fluoride (Fl) (mg/l) (EPA 6500).....	20	10
<u>PB's (EPA 8082)</u>		
	<u>(ug/kg)</u>	<u>(ug/kg)</u>
PB 1016.....	BDL	5000
PB 1221.....	BDL	5000
PB 1232.....	BDL	5000
PB 1242.....	BDL	5000
PB 1248.....	BDL	5000
PB 1254.....	BDL	5000
PB 1260.....	BDL	5000

BD - Below Detection Limit

Respectfully submitted,


Project Manager
Quality Assurance

A Unit of American Analytical Services, Inc.

ASI**ANALYTICAL SERVICES, INC.**

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February 12, 1999

P.O. No. 24619

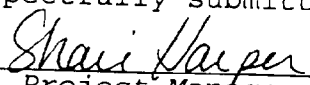
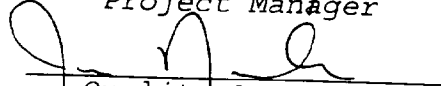
Attention: Ms. Paula MacLaren

Report No. 104092-14**Sample Description**Oil, Industrial Pollution Control, Project #990101, IPC-TK-5B (Tank 5B),
16:30, received 01/29/99**RESULTS**

	<u>Result</u>	<u>Detection Limit</u>
British Thermal Units (BTU/lb) (ASTM D 240)...	7600	-
Ignitability (°F) (EPA 1010).....	>212	70
Chloride (Cl) (mg/l) (EPA 6500).....	2400	10
Fluoride (Fl) (mg/l) (EPA 6500).....	20	10
<u>PCB's (EPA 8082)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
PCB 1016.....	BDL	5000
PCB 1221.....	BDL	5000
PCB 1232.....	BDL	5000
PCB 1242.....	BDL	5000
PCB 1248.....	BDL	5000
PCB 1254.....	BDL	5000
PCB 1260.....	BDL	5000

BDL - Below Detection Limit

Respectfully submitted,


Project Manager
Quality Assurance

A Unit of American Analytical Services, Inc.

ASI**ANALYTICAL SERVICES, INC.**

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201

2 2 0054

LABORATORY REPORTTetra Tech Inc.
1750 Corporate Drive
Suite 735
Norcross, GA 30093

February 12, 1999

P.O. No. 24619

Attention: Ms. Paula MacLaren

Report No. 104092-15Sample DescriptionSoil, grab, Industrial Pollution Control, Project #990101, IPC-SS-1,
01/27/99, 09:25, received 01/29/99RESULTS

	<u>Result</u>	<u>Detection Limit</u>
Total Cyanide (CN) (mg/kg) (EPA 9014)	BDL	0.2

Target Analyte List - Metals

<u>Metals</u>	<u>(mg/kg)</u>	<u>(mg/kg)</u>
Total Aluminum (Al) (EPA 6010)	3400	10
Total Antimony (Sb) (EPA 6010)	BDL	5.0
Total Arsenic (As) (EPA 7060)	BDL	3.0
Total Barium (Ba) (EPA 6010)	15	1.0
Total Beryllium (Be) (EPA 6010)	BDL	1.0
Total Cadmium (Cd) (EPA 6010)	BDL	1.0
Total Calcium (Ca) (EPA 6010)	860	5.0
Total Chromium (Cr) (EPA 6010)	3.9	1.0
Total Cobalt (Co) (EPA 6010)	BDL	4.0
Total Copper (Cu) (EPA 6010)	7.0	2.0
Total Iron (Fe) (EPA 6010)	4000	10
Total Lead (Pb) (EPA 6010)	8.0	5.0
Total Magnesium (Mg) (EPA 6010)	230	5.0
Total Manganese (Mn) (EPA 6010)	24	4.0
Total Mercury (Hg) (EPA 7471)	BDL	0.25

BDL - Below Detection Limit

The cyanide distillation is in accordance with EPA 9010.

A Unit of American Analytical Services, Inc.

Tetra Tech Inc.
Page 2 of 6

February 12, 1999
Report No. 104092-15

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-1,
01/27/99, 09:25, received 01/29/99

RESULTS

<u>Metals</u>	<u>Result</u> <u>(mg/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/kg)</u>
Total Nickel (Ni) (EPA 6010).....	2.9	2.0
Total Potassium (K) (EPA 6010).....	260	20
Total Selenium (Se) (EPA 7740).....	BDL	4.0
Total Silver (Ag) (EPA 6010).....	BDL	1.0
Total Sodium (Na) (EPA 6010).....	340	44
Total Thallium (Tl) (EPA 7841).....	BDL	5.0
Total Vanadium (V) (EPA 6010).....	6.8	2.0
Total Zinc (Zn) (EPA 6010).....	38	2.0
<u>Volatile Organics (EPA 8260B)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
Acetone.....	BDL	100
Acrolein.....	BDL	50
Acrylonitrile.....	BDL	50
Benzene.....	BDL	5
Bromobenzene.....	BDL	10
Bromochloromethane.....	BDL	10
Bromodichloromethane.....	BDL	10
Bromoform.....	BDL	10
Bromomethane.....	BDL	10
2-Butanone.....	BDL	100
n-Butylbenzene.....	BDL	10
sec-Butylbenzene.....	BDL	10
tert-Butylbenzene.....	BDL	10
Carbon disulfide.....	BDL	10
Carbon tetrachloride.....	BDL	5
Chlorobenzene.....	BDL	10
Chloroethane.....	BDL	5
Chloroform.....	BDL	5
Chloromethane.....	BDL	10
2-Chlorotoluene.....	BDL	10
4-Chlorotoluene.....	BDL	10
2-Chloroethylvinyl ether.....	BDL	10
Dibromochloromethane.....	BDL	5
1,2-Dibromo-3-chloropropane.....	BDL	10
1,2-Dibromoethane.....	BDL	10
Dibromomethane.....	BDL	10
1,2-Dichlorobenzene.....	BDL	10

BDL - Below Detection Limit

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-15

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-1,
01/27/99, 09:25, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(ug/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(ug/kg)</u>
1,3-Dichlorobenzene.....	BDL	10
1,4-Dichlorobenzene.....	BDL	10
Dichlorodifluoromethane.....	BDL	10
1,1-Dichloroethane.....	BDL	5
1,2-Dichloroethane.....	BDL	5
1,1-Dichloroethene.....	BDL	5
cis-1,2-Dichloroethene.....	BDL	5
trans-1,2-Dichloroethene.....	BDL	5
1,2-Dichloropropane.....	BDL	5
1,3-Dichloropropane.....	BDL	5
2,2-Dichloropropane.....	BDL	10
1,1-Dichloropropene.....	BDL	10
cis-1,3-Dichloropropene.....	BDL	5
trans-1,3-Dichloropropene.....	BDL	5
Ethylbenzene.....	BDL	5
Hexachlorobutadiene.....	BDL	10
2-Hexanone.....	BDL	50
Isopropylbenzene.....	BDL	10
p-Isopropyltoluene.....	BDL	10
Methylene chloride.....	BDL	10
4-Methyl-2-pentanone.....	BDL	10
Naphthalene.....	BDL	50
n-Propylbenzene.....	BDL	10
Styrene.....	BDL	10
1,1,1,2-Tetrachloroethane.....	BDL	5
1,1,2,2-Tetrachloroethane.....	BDL	10
Tetrachloroethene.....	BDL	5
Toluene.....	BDL	5
1,2,3-Trichlorobenzene.....	BDL	5
1,2,4-Trichlorobenzene.....	BDL	10
1,1,1-Trichloroethane.....	BDL	10
1,1,2-Trichloroethane.....	BDL	5
Trichloroethene.....	BDL	5
Trichlorofluoromethane.....	BDL	5
1,2,3-Trichloropropane.....	BDL	10
1,2,4-Trimethylbenzene.....	BDL	10
1,3,5-Trimethylbenzene.....	BDL	10
Vinyl acetate.....	BDL	10
	BDL	10

BDL - Below Detection Limit

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-15

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-1,
01/27/99, 09:25, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(ug/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(ug/kg)</u>
Vinyl chloride.....	BDL	10
m+p-Xylene.....	BDL	5
o-Xylene.....	BDL	5
Xylenes (total).....	BDL	5
<u>Acid Extractable Organics (EPA 8270C)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
4-Chloro-3-methylphenol.....	BDL	330
2-Chlorophenol.....	BDL	330
2,4-Dichlorophenol.....	BDL	330
2,4-Dimethylphenol.....	BDL	330
4,6-Dinitro-2-methylphenol.....	BDL	1700
2,4-Dinitrophenol.....	BDL	1700
2-Methylphenol.....	BDL	330
4-Methylphenol.....	BDL	330
2-Nitrophenol.....	BDL	1700
4-Nitrophenol.....	BDL	1700
Pentachlorophenol.....	BDL	660
Phenol.....	BDL	330
2,4,5-Trichlorophenol.....	BDL	330
2,4,6-Trichlorophenol.....	BDL	330
<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
Acenaphthene.....	BDL	330
Acenaphthylene.....	BDL	330
Anthracene.....	9600	330
Benzoic Acid.....	BDL	1700
Benzo(a)anthracene.....	BDL	330
Benzo(b)fluoranthene.....	BDL	330
Benzo(k)fluoranthene.....	BDL	330
Benzo(ghi)perylene.....	BDL	330
Benzo(a)pyrene.....	BDL	330
Benzyl Alcohol.....	BDL	660
Bis(2-chloroethoxy)methane.....	BDL	330
Bis(2-chloroethyl)ether.....	BDL	330
Bis(2-chloroisopropyl)ether.....	BDL	330
Bis(2-ethylhexyl)phthalate.....	BDL	330

BDL - Below Detection Limit

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-15

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-1,
01/27/99, 09:25, received 01/29/99

RESULTS

<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>Result (ug/kg)</u>	<u>Detection Limit (ug/kg)</u>
4-Bromophenyl phenyl ether.....	BDL	330
Benzyl butyl phthalate.....	BDL	330
4-Chloroaniline.....	BDL	660
2-Chloronaphthalene.....	BDL	330
4-Chlorophenyl phenyl ether.....	BDL	330
Chrysene.....	BDL	330
Dibenzo(a,h)anthracene.....	BDL	330
Dibenzofuran.....	BDL	330
Di-n-butylphthalate.....	440	330
1,3-Dichlorobenzene.....	BDL	330
1,4-Dichlorobenzene.....	BDL	330
1,2-Dichlorobenzene.....	BDL	330
3,3'-Dichlorobenzidine.....	BDL	330
Diethylphthalate.....	BDL	660
Dimethylphthalate.....	BDL	330
2,4-Dinitrotoluene.....	BDL	330
2,6-Dinitrotoluene.....	BDL	660
Di-n-octylphthalate.....	BDL	660
Fluoranthene.....	BDL	330
Fluorene.....	BDL	330
Hexachlorobenzene.....	1600	330
Hexachlorobutadiene.....	BDL	330
Hexachlorocyclopentadiene.....	BDL	330
Hexachloroethane.....	BDL	330
Indeno(1,2,3-cd)pyrene.....	BDL	330
Isophorone.....	BDL	330
2-Methylnaphthalene.....	BDL	330
Naphthalene.....	BDL	330
2-Nitroaniline.....	BDL	330
3-Nitroaniline.....	BDL	1700
4-Nitroaniline.....	BDL	1700
Nitrobenzene.....	BDL	1700
N-Nitrosodimethylamine.....	BDL	330
N-Nitrosodiphenylamine.....	BDL	330
N-Nitrosodi-n-propylamine.....	BDL	330
Phenanthrene.....	BDL	330
Pyrene.....	BDL	330
1,2,4-Trichlorobenzene.....	BDL	330
	BDL	330

DL - Below Detection Limit

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-15

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-1,
01/27/99, 09:25, received 01/29/99

RESULTS

<u>Pesticides (EPA 8081A)</u>	<u>Result</u> <u>(ug/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(ug/kg)</u>
Aldrin.....	BDL	3.3
BHC-alpha.....	BDL	3.3
BHC-beta.....	BDL	3.3
BHC-delta.....	BDL	3.3
BHC-gamma (Lindane).....	BDL	3.3
Chlordane.....	BDL	3.3
4,4'-DDD.....	BDL	17
4,4'-DDE.....	BDL	6.6
4,4'-DDT.....	BDL	6.6
Dieldrin.....	BDL	6.6
Endosulfan I.....	BDL	3.3
Endosulfan II.....	BDL	17
Endosulfan sulfate.....	BDL	17
Endrin.....	BDL	17
Endrin aldehyde.....	BDL	6.6
Heptachlor.....	BDL	6.6
Heptachlor epoxide.....	BDL	3.3
Methoxychlor.....	BDL	3.3
Toxaphene.....	BDL	9.9
	BDL	66
<u>PCB's (EPA 8082)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
PCB 1016.....	BDL	33
PCB 1221.....	BDL	33
PCB 1232.....	BDL	33
PCB 1242.....	BDL	33
PCB 1248.....	BDL	33
PCB 1254.....	BDL	33
PCB 1260.....	BDL	33

BDL - Below Detection Limit

Respectfully submitted,

Shari Harper
Project Manager

Jon A. [Signature]
Quality Assurance

ASI

2 2 0060
ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
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LABORATORY REPORT

Tetra Tech Inc.
1750 Corporate Drive
Suite 735
Norcross, GA 30093

February 12, 1999

P.O. No. 24619

Attention: Ms. Paula MacLaren

Report No. 104092-16

Sample Description

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SB-1,
01/27/99, 09:35, received 01/29/99

RESULTS

	<u>Result</u>	<u>Detection Limit</u>
Gasoline Range Organics (mg/kg) (EPA 8260B)...	BDL	5.0
Diesel Range Organics (mg/kg) (EPA 8015B).....	BDL	7.0

BDL - Below Detection Limit

Respectfully submitted,

Shari Harper
Project Manager

J. N. [Signature]
Quality Assurance

ASI**ANALYTICAL SERVICES, INC.**

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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2 2 0061

LABORATORY REPORTTetra Tech Inc.
1750 Corporate Drive
Suite 735
Norcross, GA 30093

February 12, 1999

P.O. No. 24619

Attention: Ms. Paula MacLaren

Report No. 104092-17Sample DescriptionSoil, grab, Industrial Pollution Control, Project #990101, IPC-SS-2,
01/27/99, 10:00, received 01/29/99RESULTS

	<u>Result</u>	<u>Detection Limit</u>
Total Cyanide (CN) (mg/kg) (EPA 9014)	BDL	0.2

Target Analyte List - MetalsMetals

	<u>(mg/kg)</u>	<u>(mg/kg)</u>
Total Aluminum (Al) (EPA 6010)	5900	10
Total Antimony (Sb) (EPA 6010)	BDL	5.0
Total Arsenic (As) (EPA 7060)	BDL	3.0
Total Barium (Ba) (EPA 6010)	43	1.0
Total Beryllium (Be) (EPA 6010)	BDL	1.0
Total Cadmium (Cd) (EPA 6010)	BDL	1.0
Total Calcium (Ca) (EPA 6010)	2600	5.0
Total Chromium (Cr) (EPA 6010)	10	1.0
Total Cobalt (Co) (EPA 6010)	BDL	4.0
Total Copper (Cu) (EPA 6010)	44	2.0
Total Iron (Fe) (EPA 6010)	8600	10
Total Lead (Pb) (EPA 6010)	18	5.0
Total Magnesium (Mg) (EPA 6010)	640	5.0
Total Manganese (Mn) (EPA 6010)	140	4.0
Total Mercury (Hg) (EPA 7471)	BDL	0.25

BDL - Below Detection Limit

The cyanide distillation is in accordance with EPA 9010.

A Unit of American Analytical Services, Inc.

Tetra Tech Inc.
Page 2 of 6

February 12, 1999
Report No. 104092-17

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-2,
01/27/99, 10:00, received 01/29/99

RESULTS

<u>Metals</u>	<u>Result</u> <u>(mg/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/kg)</u>
Total Nickel (Ni) (EPA 6010).....	8.5	2.0
Total Potassium (K) (EPA 6010).....	490	20
Total Selenium (Se) (EPA 7740).....	BDL	4.0
Total Silver (Ag) (EPA 6010).....	BDL	1.0
Total Sodium (Na) (EPA 6010).....	260	44
Total Thallium (Tl) (EPA 7841).....	BDL	5.0
Total Vanadium (V) (EPA 6010).....	13	2.0
Total Zinc (Zn) (EPA 6010).....	180	2.0
<u>Volatile Organics (EPA 8260B)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
Acetone.....	BDL	100
Acrolein.....	BDL	50
Acrylonitrile.....	BDL	50
Benzene.....	BDL	5
Bromobenzene.....	BDL	10
Bromochloromethane.....	BDL	10
Bromodichloromethane.....	BDL	10
Bromoform.....	BDL	10
Bromomethane.....	BDL	10
-Butanone.....	BDL	10
-Butylbenzene.....	BDL	100
ec-Butylbenzene.....	BDL	10
ert-Butylbenzene.....	BDL	10
arbon disulfide.....	BDL	10
arbon tetrachloride.....	BDL	10
hlorobenzene.....	BDL	5
hloroethane.....	BDL	10
hloroform.....	BDL	5
hloromethane.....	BDL	5
-Chlorotoluene.....	BDL	10
-Chlorotoluene.....	BDL	10
-Chloroethylvinyl ether.....	BDL	10
ibromochloromethane.....	BDL	10
2-Dibromo-3-chloropropane.....	BDL	5
2-Dibromoethane.....	BDL	10
ibromomethane.....	BDL	10
2-Dichlorobenzene.....	BDL	10
	BDL	10

BDL - Below Detection Limit

Tetra Tech Inc.
Page 3 of 6

February 12, 1999
Report No. 104092-17

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-2,
01/27/99, 10:00, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(ug/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(ug/kg)</u>
1,3-Dichlorobenzene.....	BDL	10
1,4-Dichlorobenzene.....	BDL	10
Dichlorodifluoromethane.....	BDL	10
1,1-Dichloroethane.....	BDL	5
1,2-Dichloroethane.....	BDL	5
1,1-Dichloroethene.....	BDL	5
cis-1,2-Dichloroethene.....	BDL	5
trans-1,2-Dichloroethene.....	BDL	5
1,2-Dichloropropane.....	BDL	5
1,3-Dichloropropane.....	BDL	5
2,2-Dichloropropane.....	BDL	10
1,1-Dichloropropene.....	BDL	10
cis-1,3-Dichloropropene.....	BDL	5
trans-1,3-Dichloropropene.....	BDL	5
Ethylbenzene.....	BDL	5
Hexachlorobutadiene.....	BDL	5
2-Hexanone.....	BDL	10
Isopropylbenzene.....	BDL	50
p-Isopropyltoluene.....	BDL	10
Methylene chloride.....	BDL	10
4-Methyl-2-pentanone.....	BDL	10
Naphthalene.....	BDL	50
n-Propylbenzene.....	BDL	10
Styrene.....	BDL	10
1,1,1,2-Tetrachloroethane.....	BDL	5
1,1,2,2-Tetrachloroethane.....	BDL	10
Tetrachloroethene.....	BDL	5
Toluene.....	BDL	5
1,2,3-Trichlorobenzene.....	BDL	5
1,2,4-Trichlorobenzene.....	BDL	10
1,1,1-Trichloroethane.....	BDL	10
1,1,2-Trichloroethane.....	BDL	5
Trichloroethene.....	BDL	5
Trichlorofluoromethane.....	BDL	5
1,2,3-Trichloropropane.....	BDL	10
1,2,4-Trimethylbenzene.....	BDL	10
1,3,5-Trimethylbenzene.....	BDL	10
Vinyl acetate.....	BDL	10
	BDL	10

BDL - Below Detection Limit

Tetra Tech Inc.
Page 4 of 6

February 12, 1999
Report No. 104092-17

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-2,
01/27/99, 10:00, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(ug/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(ug/kg)</u>
Vinyl chloride.....	BDL	10
m+p-Xylene.....	BDL	5
o-Xylene.....	BDL	5
Xylenes (total).....	BDL	5
<u>Acid Extractable Organics (EPA 8270C)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
4-Chloro-3-methylphenol.....	BDL	330
2-Chlorophenol.....	BDL	330
2,4-Dichlorophenol.....	BDL	330
2,4-Dimethylphenol.....	BDL	330
4,6-Dinitro-2-methylphenol.....	BDL	1700
2,4-Dinitrophenol.....	BDL	1700
2-Methylphenol.....	BDL	330
4-Methylphenol.....	BDL	330
2-Nitrophenol.....	BDL	1700
4-Nitrophenol.....	BDL	1700
Pentachlorophenol.....	BDL	660
Phenol.....	BDL	330
2,4,5-Trichlorophenol.....	BDL	330
2,4,6-Trichlorophenol.....	BDL	330
<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
Acenaphthene.....	BDL	330
Acenaphthylene.....	BDL	330
Anthracene.....	BDL	330
Benzoic Acid.....	BDL	1700
Benzo(a)anthracene.....	BDL	330
Benzo(b)fluoranthene.....	BDL	330
Benzo(k)fluoranthene.....	BDL	330
Benzo(ghi)perylene.....	BDL	330
Benzo(a)pyrene.....	BDL	330
Benzy Alcohol.....	BDL	660
Bis(2-chloroethoxy)methane.....	BDL	330
Bis(2-chloroethyl)ether.....	BDL	330
Bis(2-chloroisopropyl)ether.....	BDL	330
Bis(2-ethylhexyl)phthalate.....	BDL	330
	2300	330

DL - Below Detection Limit

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-17

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-2,
01/27/99, 10:00, received 01/29/99

RESULTS

<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>Result (ug/kg)</u>	<u>Detection Limit (ug/kg)</u>
4-Bromophenyl phenyl ether.....	BDL	330
Benzyl butyl phthalate.....	BDL	330
4-Chloroaniline.....	BDL	660
2-Chloronaphthalene.....	BDL	330
4-Chlorophenyl phenyl ether.....	BDL	330
Chrysene.....	BDL	330
Dibenzo(a,h)anthracene.....	BDL	330
Dibenzofuran.....	BDL	330
Di-n-butylphthalate.....	BDL	330
1,3-Dichlorobenzene.....	BDL	330
1,4-Dichlorobenzene.....	BDL	330
1,2-Dichlorobenzene.....	BDL	330
3,3'-Dichlorobenzidine.....	BDL	660
Diethylphthalate.....	BDL	330
Dimethylphthalate.....	BDL	330
2,4-Dinitrotoluene.....	BDL	660
2,6-Dinitrotoluene.....	BDL	660
Di-n-octylphthalate.....	BDL	330
Fluoranthene.....	BDL	330
Fluorene.....	BDL	330
Hexachlorobenzene.....	BDL	330
Hexachlorobutadiene.....	BDL	330
Hexachlorocyclopentadiene.....	BDL	330
Hexachloroethane.....	BDL	330
Indeno(1,2,3-cd)pyrene.....	BDL	330
Isophorone.....	BDL	330
2-Methylnaphthalene.....	BDL	330
Naphthalene.....	BDL	330
2-Nitroaniline.....	BDL	1700
3-Nitroaniline.....	BDL	1700
4-Nitroaniline.....	BDL	1700
Nitrobenzene.....	BDL	330
N-Nitrosodimethylamine.....	BDL	330
N-Nitrosodiphenylamine.....	BDL	330
N-Nitrosodi-n-propylamine.....	BDL	330
Phenanthrene.....	BDL	330
Pyrene.....	500	330
1,2,4-Trichlorobenzene.....	BDL	330

BDL - Below Detection Limit

2 2 0066

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-17

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-2,
01/27/99, 10:00, received 01/29/99

RESULTS

<u>Pesticides (EPA 8081A)</u>	<u>Result</u> <u>(ug/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(ug/kg)</u>
Aldrin.....	BDL	3.3
BHC-alpha.....	BDL	3.3
BHC-beta.....	BDL	3.3
BHC-delta.....	BDL	3.3
BHC-gamma (Lindane).....	BDL	3.3
Chlordane.....	BDL	3.3
4,4'-DDD.....	BDL	17
4,4'-DDE.....	BDL	6.6
4,4'-DDT.....	BDL	6.6
Dieldrin.....	BDL	6.6
Endosulfan I.....	BDL	3.3
Endosulfan II.....	BDL	17
Endosulfan sulfate.....	BDL	17
Endrin.....	BDL	6.6
Endrin aldehyde.....	BDL	6.6
Heptachlor.....	BDL	3.3
Heptachlor epoxide.....	BDL	3.3
Methoxychlor.....	BDL	9.9
Toxaphene.....	BDL	66
<u>PCB's (EPA 8082)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
PCB 1016.....	BDL	33
PCB 1221.....	BDL	33
PCB 1232.....	BDL	33
PCB 1242.....	BDL	33
PCB 1248.....	BDL	33
PCB 1254.....	BDL	33
PCB 1260.....	BDL	33

BDL - Below Detection Limit

Respectfully submitted,

Shari Harper
Project Manager
[Signature]
Quality Assurance

ASI

2 2 0067
ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201**LABORATORY REPORT**Tetra Tech Inc.
1750 Corporate Drive
Suite 735
Norcross, GA 30093

February 12, 1999

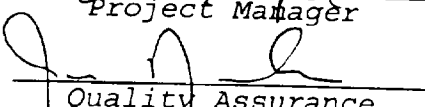
P.O. No. 24619

Attention: Ms. Paula MacLaren

Report No. 104092-18**Sample Description**Soil, grab, Industrial Pollution Control, Project #990101, IPC-SB-2,
01/27/99, 10:10, received 01/29/99**RESULTS**

	<u>Result</u>	<u>Detection Limit</u>
Gasoline Range Organics (mg/kg) (EPA 8260B)...	29	5.0
Diesel Range Organics (mg/kg) (EPA 8015B).....	43	7.0

Respectfully submitted,


Project Manager
Quality Assurance

ASI**ANALYTICAL SERVICES, INC.**

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
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2 2 0068

LABORATORY REPORTTetra Tech Inc.
1750 Corporate Drive
Suite 735
Norcross, GA 30093

February 12, 1999

P.O. No. 24619

Attention: Ms. Paula MacLaren

Report No. 104092-19**Sample Description**Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-3,
01/27/99, 10:30, received 01/29/99**RESULTS**

	<u>Result</u>	<u>Detection Limit</u>
Total Cyanide (CN) (mg/kg) (EPA 9014)	0.3	0.2

Target Analyte List - Metals**Metals**

	<u>(mg/kg)</u>	<u>(mg/kg)</u>
Total Aluminum (Al) (EPA 6010)	5500	10
Total Antimony (Sb) (EPA 6010)	BDL	5.0
Total Arsenic (As) (EPA 7060)	5.6	3.0
Total Barium (Ba) (EPA 6010)	77	1.0
Total Beryllium (Be) (EPA 6010)	BDL	1.0
Total Cadmium (Cd) (EPA 6010)	1.1	1.0
Total Calcium (Ca) (EPA 6010)	2200	5.0
Total Chromium (Cr) (EPA 6010)	14	1.0
Total Cobalt (Co) (EPA 6010)	BDL	4.0
Total Copper (Cu) (EPA 6010)	68	2.0
Total Iron (Fe) (EPA 6010)	11000	10
Total Lead (Pb) (EPA 6010)	44	5.0
Total Magnesium (Mg) (EPA 6010)	720	5.0
Total Manganese (Mn) (EPA 6010)	170	4.0
Total Mercury (Hg) (EPA 7471)	BDL	0.25

BDL - Below Detection Limit

The cyanide distillation is in accordance with EPA 9010.

A Unit of American Analytical Services, Inc.

Tetra Tech Inc.
Page 2 of 6

February 12, 1999
Report No. 104092-19

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-3,
01/27/99, 10:30, received 01/29/99

RESULTS

<u>Metals</u>	<u>Result</u> <u>(mg/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/kg)</u>
Total Nickel (Ni) (EPA 6010)	12	2.0
Total Potassium (K) (EPA 6010)	570	20
Total Selenium (Se) (EPA 7740)	BDL	4.0
Total Silver (Ag) (EPA 6010)	BDL	1.0
Total Sodium (Na) (EPA 6010)	400	44
Total Thallium (Tl) (EPA 7841)	BDL	5.0
Total Vanadium (V) (EPA 6010)	16	2.0
Total Zinc (Zn) (EPA 6010)	130	2.0
<u>Volatile Organics (EPA 8260B)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
Acetone	BDL	100
Acrolein	BDL	50
Acrylonitrile	BDL	50
Benzene	BDL	5
Bromobenzene	BDL	10
Bromochloromethane	BDL	10
Bromodichloromethane	BDL	10
Bromoform	BDL	10
Bromomethane	BDL	10
2-Butanone	BDL	100
n-Butylbenzene	BDL	10
sec-Butylbenzene	BDL	10
tert-Butylbenzene	BDL	10
Carbon disulfide	BDL	10
Carbon tetrachloride	BDL	5
Chlorobenzene	BDL	10
Chloroethane	BDL	5
Chloroform	BDL	5
Chloromethane	BDL	10
2-Chlorotoluene	BDL	10
4-Chlorotoluene	BDL	10
2-Chloroethylvinyl ether	BDL	10
Dibromochloromethane	BDL	5
1,2-Dibromo-3-chloropropane	BDL	10
1,2-Dibromoethane	BDL	10
Dibromomethane	BDL	10
1,2-Dichlorobenzene	BDL	10

BDL - Below Detection Limit

Tetra Tech Inc.
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Report No. 104092-19

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-3,
01/27/99, 10:30, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(ug/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(ug/kg)</u>
1,3-Dichlorobenzene.....	BDL	10
1,4-Dichlorobenzene.....	BDL	10
Dichlorodifluoromethane.....	BDL	10
1,1-Dichloroethane.....	BDL	5
1,2-Dichloroethane.....	BDL	5
1,1-Dichloroethene.....	BDL	5
cis-1,2-Dichloroethene.....	BDL	5
trans-1,2-Dichloroethene.....	BDL	5
1,2-Dichloropropane.....	BDL	5
1,3-Dichloropropane.....	BDL	5
2,2-Dichloropropane.....	BDL	10
1,1-Dichloropropene.....	BDL	10
cis-1,3-Dichloropropene.....	BDL	5
trans-1,3-Dichloropropene.....	BDL	5
Ethylbenzene.....	BDL	5
Hexachlorobutadiene.....	BDL	10
2-Hexanone.....	BDL	50
Isopropylbenzene.....	BDL	10
p-Isopropyltoluene.....	BDL	10
Methylene chloride.....	BDL	10
4-Methyl-2-pentanone.....	BDL	10
Naphthalene.....	BDL	50
n-Propylbenzene.....	BDL	10
Styrene.....	BDL	10
1,1,1,2-Tetrachloroethane.....	BDL	5
1,1,2,2-Tetrachloroethane.....	BDL	10
Tetrachloroethene.....	BDL	5
Toluene.....	BDL	5
1,2,3-Trichlorobenzene.....	BDL	5
1,2,4-Trichlorobenzene.....	BDL	10
1,1,1-Trichloroethane.....	BDL	10
1,1,2-Trichloroethane.....	BDL	5
Trichloroethene.....	BDL	5
Trichlorofluoromethane.....	BDL	5
1,2,3-Trichloropropane.....	BDL	10
1,2,4-Trimethylbenzene.....	BDL	10
1,3,5-Trimethylbenzene.....	BDL	10
vinyl acetate.....	BDL	10

DL - Below Detection Limit

2 2 0071

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-19

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-3,
01/27/99, 10:30, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(ug/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(ug/kg)</u>
Vinyl chloride.....	BDL	10
m+p-Xylene.....	BDL	5
o-Xylene.....	BDL	5
Xylenes (total).....	BDL	5
<u>Acid Extractable Organics (EPA 8270C)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
4-Chloro-3-methylphenol.....	BDL	330
2-Chlorophenol.....	BDL	330
2,4-Dichlorophenol.....	BDL	330
2,4-Dimethylphenol.....	BDL	330
4,6-Dinitro-2-methylphenol.....	BDL	1700
2,4-Dinitrophenol.....	BDL	1700
2-Methylphenol.....	BDL	330
4-Methylphenol.....	BDL	330
2-Nitrophenol.....	BDL	1700
4-Nitrophenol.....	BDL	1700
Pentachlorophenol.....	BDL	660
Phenol.....	BDL	330
2,4,5-Trichlorophenol.....	BDL	330
2,4,6-Trichlorophenol.....	BDL	330
<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
Acenaphthene.....	BDL	330
Acenaphthylene.....	BDL	330
Anthracene.....	BDL	330
Benzoic Acid.....	BDL	1700
Benzo(a)anthracene.....	BDL	330
Benzo(b)fluoranthene.....	BDL	330
Benzo(k)fluoranthene.....	BDL	330
Benzo(ghi)perylene.....	BDL	330
Benzo(a)pyrene.....	BDL	330
Benzyl Alcohol.....	BDL	660
Bis(2-chloroethoxy)methane.....	BDL	330
Bis(2-chloroethyl)ether.....	BDL	330
Bis(2-chloroisopropyl)ether.....	BDL	330
Bis(2-ethylhexyl)phthalate.....	1600	330

BDL - Below Detection Limit

Tetra Tech Inc.
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Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-3,
01/27/99, 10:30, received 01/29/99

RESULTS

<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>Result (ug/kg)</u>	<u>Detection Limit (ug/kg)</u>
4-Bromophenyl phenyl ether.....	BDL	330
Benzyl butyl phthalate.....	BDL	330
4-Chloroaniline.....	BDL	660
2-Chloronaphthalene.....	BDL	330
4-Chlorophenyl phenyl ether.....	BDL	330
Chrysene.....	BDL	330
Dibenzo(a,h)anthracene.....	BDL	330
Dibenzofuran.....	BDL	330
Di-n-butylphthalate.....	BDL	330
1,3-Dichlorobenzene.....	BDL	330
1,4-Dichlorobenzene.....	BDL	330
1,2-Dichlorobenzene.....	BDL	330
3,3'-Dichlorobenzidine.....	BDL	660
Diethylphthalate.....	BDL	330
Dimethylphthalate.....	BDL	330
2,4-Dinitrotoluene.....	BDL	660
2,6-Dinitrotoluene.....	BDL	660
Di-n-octylphthalate.....	BDL	330
Fluoranthene.....	BDL	330
Fluorene.....	BDL	330
Hexachlorobenzene.....	BDL	330
Hexachlorobutadiene.....	BDL	330
Hexachlorocyclopentadiene.....	BDL	330
Hexachloroethane.....	BDL	330
Indeno(1,2,3-cd)pyrene.....	BDL	330
Isophorone.....	BDL	330
2-Methylnaphthalene.....	BDL	330
Naphthalene.....	BDL	330
2-Nitroaniline.....	BDL	1700
3-Nitroaniline.....	BDL	1700
4-Nitroaniline.....	BDL	1700
Nitrobenzene.....	BDL	330
N-Nitrosodimethylamine.....	BDL	330
N-Nitrosodiphenylamine.....	BDL	330
N-Nitrosodi-n-propylamine.....	BDL	330
Phenanthrene.....	BDL	330
Pyrene.....	390	330
1,2,4-Trichlorobenzene.....	BDL	330

BDL - Below Detection Limit

2 2 0073

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-19

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-3,
01/27/99, 10:30, received 01/29/99

RESULTS

<u>Pesticides (EPA 8081A)</u>	<u>Result</u> <u>(ug/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(ug/kg)</u>
Aldrin.....	BDL	3.3
BHC-alpha.....	BDL	3.3
BHC-beta.....	BDL	3.3
BHC-delta.....	BDL	3.3
BHC-gamma (Lindane).....	BDL	3.3
Chlordane.....	BDL	3.3
4,4'-DDD.....	BDL	17
4,4'-DDE.....	BDL	6.6
4,4'-DDT.....	BDL	6.6
Dieldrin.....	BDL	6.6
Endosulfan I.....	BDL	3.3
Endosulfan II.....	BDL	17
Endosulfan sulfate.....	BDL	17
Endrin.....	BDL	17
Endrin aldehyde.....	BDL	6.6
Heptachlor.....	BDL	6.6
Heptachlor epoxide.....	BDL	3.3
Methoxychlor.....	BDL	3.3
Toxaphene.....	BDL	9.9
	BDL	66
<u>PCB's (EPA 8082)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
PCB 1016.....	BDL	33
PCB 1221.....	BDL	33
PCB 1232.....	BDL	33
PCB 1242.....	BDL	33
PCB 1248.....	BDL	33
PCB 1254.....	BDL	33
PCB 1260.....	BDL	33

BDL - Below Detection Limit

Respectfully submitted,

Shari Harper
Project Manager

J. N. L.
Quality Assurance

ASI**ANALYTICAL SERVICES, INC.**

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
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2 2 0074

LABORATORY REPORTTetra Tech Inc.
1750 Corporate Drive
Suite 735
Norcross, GA 30093

February 12, 1999

P.O. No. 24619

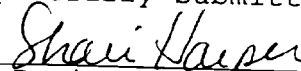
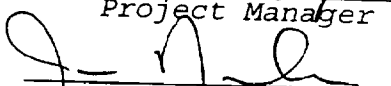
Attention: Ms. Paula MacLaren

Report No. 104092-20Sample DescriptionSoil, grab, Industrial Pollution Control, Project #990101, IPC-SB-3,
01/27/99, 10:42, received 01/29/99RESULTS

	<u>Result</u>	<u>Detection Limit</u>
Gasoline Range Organics (mg/kg) (EPA 8260B)...	BDL	5.0
Diesel Range Organics (mg/kg) (EPA 8015B).....	280	70

BDL - Below Detection Limit

Respectfully submitted,


Project Manager
Quality Assurance

ASI**ANALYTICAL SERVICES, INC.**

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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2 2 0075

LABORATORY REPORTTetra Tech Inc.
1750 Corporate Drive
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February 12, 1999

P.O. No. 24619

Attention: Ms. Paula MacLaren

Report No. 104092-21**Sample Description**Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-4,
01/27/99, 11:00, received 01/29/99**RESULTS**

	<u>Result</u>	<u>Detection Limit</u>
Total Cyanide (CN) (mg/kg) (EPA 9014)	BDL	0.2

Target Analyte List - Metals

<u>Metals</u>	<u>(mg/kg)</u>	<u>(mg/kg)</u>
Total Aluminum (Al) (EPA 6010)	10000	10
Total Antimony (Sb) (EPA 6010)	BDL	5.0
Total Arsenic (As) (EPA 7060)	3.1	3.0
Total Barium (Ba) (EPA 6010)	54	1.0
Total Beryllium (Be) (EPA 6010)	BDL	1.0
Total Cadmium (Cd) (EPA 6010)	BDL	1.0
Total Calcium (Ca) (EPA 6010)	2000	5.0
Total Chromium (Cr) (EPA 6010)	9.2	1.0
Total Cobalt (Co) (EPA 6010)	5.1	4.0
Total Copper (Cu) (EPA 6010)	9.2	2.0
Total Iron (Fe) (EPA 6010)	17000	10
Total Lead (Pb) (EPA 6010)	14	5.0
Total Magnesium (Mg) (EPA 6010)	990	5.0
Total Manganese (Mn) (EPA 6010)	470	4.0
Total Mercury (Hg) (EPA 7471)	BDL	0.25

BDL - Below Detection Limit

The cyanide distillation is in accordance with EPA 9010.

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Tetra Tech Inc.
Page 2 of 6

February 12, 1999
Report No. 104092-21

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-4,
01/27/99, 11:00, received 01/29/99

RESULTS

<u>Metals</u>	<u>Result</u> <u>(mg/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(mg/kg)</u>
Total Nickel (Ni) (EPA 6010)	7.9	2.0
Total Potassium (K) (EPA 6010)	670	20
Total Selenium (Se) (EPA 7740)	BDL	4.0
Total Silver (Ag) (EPA 6010)	BDL	1.0
Total Sodium (Na) (EPA 6010)	390	44
Total Thallium (Tl) (EPA 7841)	BDL	5.0
Total Vanadium (V) (EPA 6010)	23	2.0
Total Zinc (Zn) (EPA 6010)	41	2.0
<u>Volatile Organics (EPA 8260B)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
Acetone	260	100
Acrolein	BDL	50
Acrylonitrile	BDL	50
Benzene	39	5
Bromobenzene	BDL	10
Bromochloromethane	BDL	10
Bromodichloromethane	BDL	10
Bromoform	BDL	10
Bromomethane	BDL	10
-Butanone	BDL	10
-Butylbenzene	BDL	100
ec-Butylbenzene	15	10
ert-Butylbenzene	BDL	10
arbon disulfide	BDL	10
arbon tetrachloride	BDL	10
hlorobenzene	BDL	5
hloroethane	BDL	10
hloroform	BDL	5
hloromethane	BDL	5
-Chlorotoluene	BDL	10
-Chlorotoluene	BDL	10
-Chloroethylvinyl ether	BDL	10
ibromochloromethane	BDL	10
,2-Dibromo-3-chloropropane	BDL	5
,2-Dibromoethane	BDL	10
ibromomethane	BDL	10
,2-Dichlorobenzene	BDL	10
	BDL	10

DL - Below Detection Limit

Tetra Tech Inc.
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February 12, 1999
Report No. 104092-21

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-4,
01/27/99, 11:00, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(ug/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(ug/kg)</u>
1,3-Dichlorobenzene.....	BDL	10
1,4-Dichlorobenzene.....	BDL	10
Dichlorodifluoromethane.....	BDL	10
1,1-Dichloroethane.....	BDL	5
1,2-Dichloroethane.....	BDL	5
1,1-Dichloroethene.....	BDL	5
cis-1,2-Dichloroethene.....	BDL	5
trans-1,2-Dichloroethene.....	BDL	5
1,2-Dichloropropane.....	BDL	5
1,3-Dichloropropane.....	BDL	5
2,2-Dichloropropane.....	BDL	10
1,1-Dichloropropene.....	BDL	10
cis-1,3-Dichloropropene.....	BDL	5
trans-1,3-Dichloropropene.....	BDL	5
Ethylbenzene.....	93	5
Hexachlorobutadiene.....	BDL	10
2-Hexanone.....	BDL	50
Isopropylbenzene.....	BDL	10
p-Isopropyltoluene.....	BDL	10
Methylene chloride.....	BDL	10
4-Methyl-2-pentanone.....	BDL	50
Naphthalene.....	10	10
n-Propylbenzene.....	14	10
Styrene.....	BDL	5
1,1,1,2-Tetrachloroethane.....	BDL	10
1,1,2,2-Tetrachloroethane.....	BDL	5
Tetrachloroethene.....	BDL	5
Toluene.....	12	5
1,2,3-Trichlorobenzene.....	BDL	10
1,2,4-Trichlorobenzene.....	BDL	10
1,1,1-Trichloroethane.....	BDL	5
1,1,2-Trichloroethane.....	BDL	5
Trichloroethene.....	BDL	5
Trichlorofluoromethane.....	BDL	10
1,2,3-Trichloropropane.....	BDL	10
1,2,4-Trimethylbenzene.....	55	10
1,3,5-Trimethylbenzene.....	34	10
Vinyl acetate.....	BDL	10

BDL - Below Detection Limit

Tetra Tech Inc.
Page 4 of 6

February 12, 1999
Report No. 104092-21

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-4,
01/27/99, 11:00, received 01/29/99

RESULTS

<u>Volatile Organics (EPA 8260B)</u>	<u>Result</u> <u>(ug/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(ug/kg)</u>
Vinyl chloride.....	BDL	10
m+p-Xylene.....	95	5
o-Xylene.....	30	5
Xylenes (total).....	130	5
<u>Acid Extractable Organics (EPA 8270C)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
4-Chloro-3-methylphenol.....	BDL	330
2-Chlorophenol.....	BDL	330
2,4-Dichlorophenol.....	BDL	330
2,4-Dimethylphenol.....	BDL	330
4,6-Dinitro-2-methylphenol.....	BDL	1700
2,4-Dinitrophenol.....	BDL	1700
2-Methylphenol.....	BDL	330
4-Methylphenol.....	BDL	330
2-Nitrophenol.....	BDL	1700
4-Nitrophenol.....	BDL	1700
Pentachlorophenol.....	BDL	660
Phenol.....	BDL	330
2,4,5-Trichlorophenol.....	BDL	330
2,4,6-Trichlorophenol.....	BDL	330
<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
Acenaphthene.....	BDL	330
Acenaphthylene.....	BDL	330
Anthracene.....	BDL	330
Benzoic Acid.....	BDL	1700
Benzo(a)anthracene.....	BDL	330
Benzo(b)fluoranthene.....	BDL	330
Benzo(k)fluoranthene.....	BDL	330
Benzo(ghi)perylene.....	BDL	330
Benzo(a)pyrene.....	BDL	330
Benzyl Alcohol.....	BDL	660
Bis(2-chloroethoxy)methane.....	BDL	330
Bis(2-chloroethyl)ether.....	BDL	330
Bis(2-chloroisopropyl)ether.....	BDL	330
Bis(2-ethylhexyl)phthalate.....	BDL	330

BDL - Below Detection Limit

Tetra Tech Inc.
Page 5 of 6

February 12, 1999
Report No. 104092-21

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-4,
01/27/99, 11:00, received 01/29/99

RESULTS

<u>Base/Neutral Extractable Organics (EPA 8270C)</u>	<u>Result (ug/kg)</u>	<u>Detection Limit (ug/kg)</u>
4-Bromophenyl phenyl ether.....	BDL	330
Benzyl butyl phthalate.....	BDL	330
4-Chloroaniline.....	BDL	660
2-Chloronaphthalene.....	BDL	330
4-Chlorophenyl phenyl ether.....	BDL	330
Chrysene.....	BDL	330
Dibenzo(a,h)anthracene.....	BDL	330
Dibenzofuran.....	BDL	330
Di-n-butylphthalate.....	BDL	330
1,3-Dichlorobenzene.....	BDL	330
1,4-Dichlorobenzene.....	BDL	330
1,2-Dichlorobenzene.....	BDL	330
3,3'-Dichlorobenzidine.....	BDL	660
Diethylphthalate.....	BDL	330
Dimethylphthalate.....	BDL	330
2,4-Dinitrotoluene.....	BDL	660
2,6-Dinitrotoluene.....	BDL	660
Di-n-octylphthalate.....	BDL	330
Fluoranthene.....	BDL	330
Fluorene.....	BDL	330
Hexachlorobenzene.....	BDL	330
Hexachlorobutadiene.....	BDL	330
Hexachlorocyclopentadiene.....	BDL	330
Hexachloroethane.....	BDL	330
Indeno(1,2,3-cd)pyrene.....	BDL	330
Isophorone.....	BDL	330
2-Methylnaphthalene.....	BDL	330
Naphthalene.....	BDL	330
2-Nitroaniline.....	BDL	1700
3-Nitroaniline.....	BDL	1700
4-Nitroaniline.....	BDL	1700
Nitrobenzene.....	BDL	330
N-Nitrosodimethylamine.....	BDL	330
N-Nitrosodiphenylamine.....	BDL	330
N-Nitrosodi-n-propylamine.....	BDL	330
Phenanthrene.....	BDL	330
Pyrene.....	BDL	330
1,2,4-Trichlorobenzene.....	BDL	330

BDL - Below Detection Limit

2 2 0080

Tetra Tech Inc.
Page 6 of 6

February 12, 1999
Report No. 104092-21

Soil, grab, Industrial Pollution Control, Project #990101, IPC-SS-4,
01/27/99, 11:00, received 01/29/99

RESULTS

<u>Pesticides (EPA 8081A)</u>	<u>Result</u> <u>(ug/kg)</u>	<u>Detection</u> <u>Limit</u> <u>(ug/kg)</u>
Aldrin.....	BDL	3.3
BHC-alpha.....	BDL	3.3
BHC-beta.....	BDL	3.3
BHC-delta.....	BDL	3.3
BHC-gamma (Lindane).....	BDL	3.3
Chlordane.....	BDL	3.3
4,4'-DDD.....	BDL	17
4,4'-DDE.....	BDL	6.6
4,4'-DDT.....	BDL	6.6
Dieldrin.....	BDL	6.6
Endosulfan I.....	BDL	3.3
Endosulfan II.....	BDL	17
Endosulfan sulfate.....	BDL	17
Endrin.....	BDL	17
Endrin aldehyde.....	BDL	6.6
Heptachlor.....	BDL	6.6
Heptachlor epoxide.....	BDL	3.3
Methoxychlor.....	BDL	3.3
Toxaphene.....	BDL	9.9
	BDL	66
<u>PCB's (EPA 8082)</u>	<u>(ug/kg)</u>	<u>(ug/kg)</u>
PCB 1016.....	BDL	33
PCB 1221.....	BDL	33
PCB 1232.....	BDL	33
PCB 1242.....	BDL	33
PCB 1248.....	BDL	33
PCB 1254.....	BDL	33
PCB 1260.....	BDL	33

DL - Below Detection Limit

Respectfully submitted,

Shari Harper
Project Manager

[Signature]
Quality Assurance

ASI

2 2 0081
ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201LABORATORY REPORTTetra Tech Inc.
1750 Corporate Drive
Suite 735
Norcross, GA 30093

February 12, 1999

P.O. No. 24619

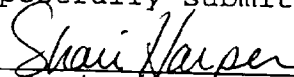

Attention: Ms. Paula MacLaren

Report No. 104092-22Sample DescriptionSoil, grab, Industrial Pollution Control, Project #990101, IPC-SB-4,
01/27/99, 11:15, received 01/29/99RESULTS

	<u>Result</u>	<u>Detection Limit</u>
Gasoline Range Organics (mg/kg) (EPA 8260B)...	BDL	5.0
Diesel Range Organics (mg/kg) (EPA 8015B).....	8.0	7.0

BDL - Below Detection Limit

Respectfully submitted,


Project Manager
Quality Assurance

ASI

2 2 0082
ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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(770) 734-4200 • FAX (770) 734-4201LABORATORY REPORTTetra Tech Inc.
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February 12, 1999

P.O. No. 24619

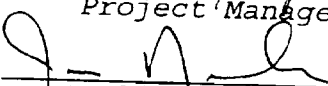
Attention: Ms. Paula MacLaren

Report No. 104092-23Sample DescriptionSoil, grab, Industrial Pollution Control, Project #990101, IPC-SS-5,
01/27/99, 11:35, received 01/29/99RESULTS

	<u>Result</u>	<u>Detection Limit</u>
Gasoline Range Organics (mg/kg) (EPA 8260B)...	BDL	5.0
Diesel Range Organics (mg/kg) (EPA 8015B).....	45	7.0

BDL - Below Detection Limit

Respectfully submitted,


Project Manager
Quality Assurance

ASI

2 2 0083

ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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LABORATORY REPORT

Tetra Tech Inc.
1750 Corporate Drive
Suite 735
Norcross, GA 30093

February 12, 1999

P.O. No. 24619

Attention: Ms. Paula MacLaren

Report No. 104092-24

Sample Description

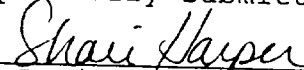
Soil, grab, Industrial Pollution Control, Project #990101, IPC-SB-5,
01/27/99, 11:50, received 01/29/99

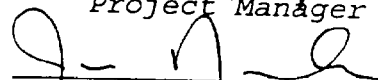
RESULTS

	<u>Result</u>	<u>Detection Limit</u>
Gasoline Range Organics (mg/kg) (EPA 8260B)...	BDL	5.0
Diesel Range Organics (mg/kg) (EPA 8015B).....	34	7.0

BDL - Below Detection Limit

Respectfully submitted,


Project Manager


Quality Assurance

ASI

2 2 0084
ANALYTICAL SERVICES, INC.

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

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1750 Corporate Drive
Suite 735
Norcross, GA 30093

February 12, 1999

P.O. No. 24619

Attention: Ms. Paula MacLaren

Report No. 104092-25Sample DescriptionSoil, grab, Industrial Pollution Control, Project #990101, IPC-SB-6,
01/27/99, 08:28, received 01/29/99RESULTS


	<u>Result</u>	<u>Detection Limit</u>
Gasoline Range Organics (mg/kg) (EPA 8260B)...	BDL	5.0
Diesel Range Organics (mg/kg) (EPA 8015B).....	175	70

BDL - Below Detection Limit

Respectfully submitted,



Project Manager


Quality Assurance

ASI**ANALYTICAL SERVICES, INC.**

ENVIRONMENTAL MONITORING & LABORATORY ANALYSIS

110 TECHNOLOGY PARKWAY • NORCROSS, GA 30092
(770) 734-4200 • FAX (770) 734-4201**LABORATORY REPORT**Tetra Tech Inc.
1750 Corporate Drive
Suite 735
Norcross, GA 30093

February 12, 1999

P.O. No. 24619

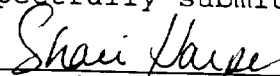
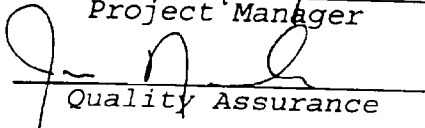
Attention: Ms. Paula MacLaren

Report No. 104092-26**Sample Description**Soil, grab, Industrial Pollution Control, Project #990101, IPC-SB-7,
01/27/99, 08:55, received 01/29/99**RESULTS**

	<u>Result</u>	<u>Detection Limit</u>
Gasoline Range Organics (mg/kg) (EPA 8260B)...	BDL	5.0
Diesel Range Organics (mg/kg) (EPA 8015B).....	110	70

BDL - Below Detection Limit

Respectfully submitted,


Project Manager
Quality Assurance

Analytical Services Inc. Batch QC
 For Report Number :104092
 Organochlorine Pesticides

Matrix : Soil/Sediment

Batch # 44741

Method : EPA 8081

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
BHC-gamma (Lindane)	91	94	3	10 - 150	0 - 50
Heptachlor	99	102	3	10 - 192	0 - 37
Aldrin	90	97	7	10 - 166	0 - 40
Dieldrin	94	102	8	29 - 136	0 - 40
Endrin	99	105	7	10 - 150	0 - 50
4,4'-DDT	96	107	10	10 - 203	0 - 62
Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
BHC-gamma (Lindane)	33	47	34	10 - 150	0 - 50
Heptachlor	31	30	2	10 - 192	0 - 37
Aldrin	52	58	12	10 - 166	0 - 40
Dieldrin	61	69	12	29 - 136	0 - 40
Endrin	47	49	6	10 - 150	0 - 50
4,4'-DDT	9	5	50	10 - 203	0 - 62

Analytical Services Inc. Batch QC
 Surrogate Recovery
 Organochlorine Pesticides

Matrix : Soil/Sediment Batch # 44741

Method : EPA 8081

% Recovery Objectives

S1	Dibutylchlorendate	11 - 130
S2	Tetrachloro-m-xylene	13 - 110
S3	Decachlorobiphenyl	8 - 135

Sample	File	S1	S2	S3	S4	S5	S6
44741BLK	011299061F	89	89	101			
44741LCS	011299062F	111	97	106			
44741LCSD	011299063F	109	103	130			
103143-2	011299064F	68	68	77			
103143-1	011299065F	49	54	59			
103143-2DUP	011299066F	79	83	98			
103246-1	011299068R	103	94	116			
BLK02/03	020399012F	98	99	118			
104170-2	020399024F	70	54	82			
104170-1	020399025R	63	59	74			
104157-1	020399026R	82	86	98			
BLK02/02	020399027R	79	88	93			
104092-15	020399028R	87	79	105			
104092-21	020399029R	87	77	110			
104092-17	020499061F	70	70	71			
104092-19	020499062F	99	83	37			
BLK02/06	020899003F	91	88	107			
104365-2D	020899004F	20	14	6			
^^Note: 10X DILUTION, SURR DILUTED OUT							
104365-3	020899005F	89	74	73			
BLK02/08	020799072R	82	80	93			
104157-1RR	020799078R	84	82	95			
104365-2	020799013f	107	95	104			
104364-2	020799096F	81	71	104			
104364-2MS	020799097F	82	57	57			
104364-2MSD	020799098R	111	104	100			
BLK02/08	020799099F	89	91	97			
BLK02/12	021199012R	82	92	97			
104360-3	021199018F	42	63	42			

Blank Results Information
Organochlorine Pesticides Method : EPA 8081

Analyte	Blank Result	Detection Limit
Aldrin	BDL	3.3
BHC-alpha	BDL	3.3
BHC-beta	BDL	3.3
BHC-delta	BDL	3.3
BHC-gamma	BDL	3.3
Chlordane	BDL	3.3
4,4'-DDD	BDL	17
4,4'-DDE	BDL	6.6
4,4'-DDT	BDL	6.6
Dieldrin	BDL	6.6
Endosulfan I	BDL	3.3
Endosulfan II	BDL	17
Endosulfan sulfate	BDL	17
Endrin	BDL	17
Endrin aldehyde	BDL	6.6
Heptachlor	BDL	6.6
Heptachlor epoxide	BDL	3.3
Methoxychlor	BDL	3.3
Toxaphene	BDL	9.9
		66

Sample Batch Information
Organochlorine Pesticides Method : EPA 8081

Sample ID	Preparation			Preparation Notes	Analysis			Inst #
	Date	Time	By		Date	Time	By	
4741BLK	01/11/99	1700	SB		01/13/99	0500	JQZ	GC-3
4741LCS	01/11/99	1700	SB		01/13/99	0534	JQZ	GC-3
4741LCSD	01/11/99	1700	SB		01/13/99	0609	JQZ	GC-3
13143-2	01/11/99	1700	SB		01/13/99	0643	JQZ	GC-3
13143-1	01/11/99	1700	SB		01/13/99	0717	JQZ	GC-3
13143-2DUP	01/11/99	1700	SB		01/13/99	0752	JQZ	GC-3
13246-1	01/11/99	1700	SB		01/13/99	0826	JQZ	GC-3
BLK02/02	02/02/99	1030	CP/SB		02/04/99	0839	JQZ	GC-3
14092-15	02/02/99	1030	CP/SB		02/04/99	0914	JQZ	GC-3
14092-17	02/02/99	1030	CP/SB		02/06/99	0350	JQZ	GC-3
14092-19	02/02/99	1030	CP/SB		02/06/99	0424	JQZ	GC-3
14092-21	02/02/99	1030	CP/SB		02/04/99	0948	JQZ	GC-3
BLK02/03	02/03/99	1000	SB		02/04/99	0036	JQZ	GC-3
14157-1	02/03/99	1000	SB		02/04/99	0804	JQZ	GC-3
14170-1	02/03/99	1000	SB		02/04/99	0730	JQZ	GC-3
14170-2	02/03/99	1000	SB		02/04/99	0655	JQZ	GC-3
BLK02/06	02/06/99	1335	MB		02/08/99	1243	JQZ	GC-3
10365-2D	/	/			02/08/99	1315	JQZ	GC-3
10365-3	02/06/99	1335	MB		02/08/99	1346	JQZ	GC-3
10365-2	02/06/99	1335	MB		02/07/99	2334	JQZ	GC-3
BLK02/08	02/08/99	1000	SB		02/09/99	2217	JQZ	GC-3
10364-2	02/08/99	1000	SB		02/09/99	2034	JQZ	GC-3
10157-1RR	02/08/99	1000	SB		02/09/99	0744	JQZ	GC-3
10364-2MS	02/08/99	1000	SB		02/09/99	2108	JQZ	GC-3
10364-2MSD	02/08/99	1000	SB		02/09/99	2108	JQZ	GC-3
BLK02/11	02/11/99	0800	SB		02/12/99	0009	JQZ	GC-3
10360-3	02/11/99	0800	SB		02/12/99	0410	JQZ	GC-3

Analytical Services Inc. Batch QC
 For Report Number :104092
 Base Neutrals / Acids

Matrix : Dilution

Batch # 44756

Method : EPA 8270

Control Information Analyte	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
Phenol	86	86	0	12 - 89	0 - 42
2-Chlorophenol	89	89	0	27 - 123	0 - 40
1,2-Dichlorobenzene	89	88	1	36 - 97	0 - 28
N-Nitrosodipropylamine	99	96	4	41 - 116	0 - 38
1,2,4-Trichlorobenzene	77	75	3	44 - 142	0 - 28
4-Chloro-3-methylphenol	76	76	0	23 - 97	0 - 42
Acenaphthene	80	77	4	46 - 118	0 - 31
2,4-Dinitrotoluene	65	69	6	24 - 96	0 - 38
4-Nitrophenol	46	48	3	10 - 80	0 - 50
Pentachlorophenol	52	55	5	9 - 103	0 - 50
Pyrene	117	97	19	26 - 127	0 - 31

Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
Phenol	165	129	25	12 - 89	0 - 42
2-Chlorophenol	99	89	11	27 - 123	0 - 40
1,2-Dichlorobenzene	84	78	7	36 - 97	0 - 28
N-Nitrosodipropylamine	108	107	1	41 - 116	0 - 38
1,2,4-Trichlorobenzene	84	77	9	44 - 142	0 - 28
4-Chloro-3-methylphenol	81	78	3	23 - 97	0 - 42
Acenaphthene	80	78	3	46 - 118	0 - 31
2,4-Dinitrotoluene	76	77	1	24 - 96	0 - 38
4-Nitrophenol	76	76	0	10 - 80	0 - 50
Pentachlorophenol	76	66	14	9 - 103	0 - 50
Pyrene	72	69	4	26 - 127	0 - 31

Analytical Services Inc. Batch QC

Surrogate Recovery

Base Neutrals / Acids

Matrix : Dilution

Batch # 44756

Method : EPA 8270

% Recovery Objectives

S1	2-Fluorophenol	21 - 100
S2	Phenol-d5	10 - 94
S3	Nitrobenzene-d5	35 - 114
S4	2-Fluorobiphenyl	43 - 116
S5	2,4,6-Tribromophenol	10 - 123
S6	Terphenyl-d14	33 - 141

Sample	File	S1	S2	S3	S4	S5	S6
44756BLK	B0291	80	78	81	75	55	101
44756LCS	B0294	83	83	80	75	57	105
44756LCSD	B0295	79	78	81	72	61	89
103227MS	B0360	74	77	87	92	73	103
103227MSD	B0361	80	60	82	87	71	89
BLK1/14	A4768	99	73	114	109	89	122
103445-1	A4762	95	94	109	99	47	125
103492-1	A4765	88	90	101	101	93	112
103492-2	A4769	76	66	101	83	86	133
103316-2	A4795	85	103	90	111	99	130
BLK1/15	A4790	87	85	87	115	66	107
103227	B0325	69	61	45	75	40	125
BLK2/01	B0615	100	90	94	96	76	105
104009-1	B0619	90	91	81	78	88	93
104009-2	B0620	92	87	80	77	87	91
104078	B0621	116	54	101	95	92	116
^^Note: Matrix interference							
104131-1	b0683	84	94	95	94	67	95
104131-2	b0677	98	93	98	105	35	96
104131-3	b0684	85	94	90	99	78	96
104131-9	b0679	87	89	94	92	72	88
104131-10	b0680	76	94	97	95	70	88
104092-1	b0681	76	362	116	93	68	90
^^Note: Matrix interference							
104092-2	b0682	84	87	93	98	56	100
104092-1dup	a5105	100	104	124	122	115	108
^^Note: Matrix interference							

Q.C. Information for Batch # 44756

Printed: 02/17/99 15:14:46

Blank Results Information
Base Neutrals / Acids Method : EPA 8270

Analyte	Blank Result	Detection Limit
4-Chloro-3-methylphenol	BDL	1000
2-Chlorophenol	BDL	1000
2,4-Dichlorophenol	BDL	1000
2,4-Dimethylphenol	BDL	1000
4,6-Dinitro-2-methylphenol	BDL	1000
2,4-Dinitrophenol	BDL	1000
2-Methylphenol	BDL	1000
4-Methylphenol	BDL	1000
2-Nitrophenol	BDL	1000
4-Nitrophenol	BDL	1000
Pentachlorophenol	BDL	1000
Phenol	BDL	1000
2,4,5-Trichlorophenol	BDL	1000
2,4,6-Trichlorophenol	BDL	1000
Acenaphthene	BDL	1000
Acenaphthylene	BDL	1000
Anthracene	BDL	1000
Benzoic Acid	BDL	1000
Benzo(a)anthracene	BDL	1000
Benzo(b)fluoranthene	BDL	1000
Benzo(k)fluoranthene	BDL	1000
Benzo(ghi)perylene	BDL	1000
Benzo(a)pyrene	BDL	1000
Benzyl Alcohol	BDL	1000
Bis(2-chloroethoxy)methane	BDL	1000
Bis(2-chloroethyl)ether	BDL	1000
Bis(2-chloroisopropyl)ether	BDL	1000
Bis(2-ethylhexyl)phthalate	BDL	1000
4-Bromophenyl phenyl ether	BDL	1000
Benzyl butyl phthalate	BDL	1000
4-Chloroaniline	BDL	1000
2-Chloronaphthalene	BDL	1000
4-Chlorophenyl phenyl ether	BDL	1000
Chrysene	BDL	1000
Dibenzo(a,h)anthracene	BDL	1000
Dibenzofuran	BDL	1000
Di-n-butylphthalate	BDL	1000
1,3-Dichlorobenzene	BDL	1000
1,4-Dichlorobenzene	BDL	1000
1,2-Dichlorobenzene	BDL	1000
3,3'-Dichlorobenzidine	BDL	1000
Diethylphthalate	BDL	1000
Dimethylphthalate	BDL	1000
2,4-Dinitrotoluene	BDL	1000
2,6-Dinitrotoluene	BDL	1000
Di-n-octylphthalate	BDL	1000
Fluoranthene	BDL	1000
Fluorene	BDL	1000
Hexachlorobenzene	BDL	1000

Blank Results Information
Base Neutrals / Acids Method : EPA 8270

Analyte	Blank Result	Detection Limit
Hexachlorobutadiene	BDL	1000
Hexachlorocyclopentadiene	BDL	1000
Hexachloroethane	BDL	1000
Indeno(1,2,3-cd)pyrene	BDL	1000
Isophorone	BDL	1000
2-Methylnaphthalene	BDL	1000
Naphthalene	BDL	1000
2-Nitroaniline	BDL	1000
3-Nitroaniline	BDL	1000
4-Nitroaniline	BDL	1000
Nitrobenzene	BDL	1000
N-Nitrosodimethylamine	BDL	1000
N-Nitrosodiphenylamine	BDL	1000
N-Nitrosodi-n-propylamine	BDL	1000
Phenanthrene	BDL	1000
Pyrene	BDL	1000
1,2,4-Trichlorobenzene	BDL	1000

Sample Batch Information
Base Neutrals / Acids Method : EPA 8270

Sample ID	Preparation			Preparation Notes	Analysis			Inst #
	Date	Time	By		Date	Time	By	
4756BLK	01/12/99	1050	JS		01/13/99	1525	TAS	5971
4756LCS	01/12/99	1050	JS		01/13/99	1703	TAS	5971
4756LCSD	01/12/99	1050	JS		01/13/99	1735	TAS	5971
103227MS	01/12/99	1050	JS		01/15/99	1844	TAS	5971
103227MSD	01/12/99	1050	JS		01/15/99	1915	TAS	5971
103227	01/12/99	1050	JS		01/14/99	1536	TAS	5971
BLK1/14	01/14/99	1430	JS		01/16/99	2334	RAC	5973
103445-1	01/14/99	1430	JS		01/16/99	2044	RAC	5973
103492-1	01/15/99	1130	JS		01/16/99	2218	RAC	5973
103492-2	01/15/99	1130	JS		01/16/99	1205	RAC	5973
103316-2	01/15/99	1000	JS		01/18/99	1644	TAS	5973
BLK1/15	01/15/99	1000	JS		01/18/99	1226	RAC	5973
103009-1	02/01/99	1230	JS		02/01/99	1719	RAC	5971
103009-2	02/01/99	1230	JS		02/01/99	1819	RAC	5971
103078	02/01/99	1230	JS		02/01/99	1853	RAC	5971
BLK2/01	02/01/99	1240	JS		02/01/99	1511	TAS	5971
BLK2/02	02/02/99	1430	JS		/	/		
103131-1	02/02/99	1430	JS		02/03/99	2023	TAS	5971
103131-2	02/02/99	1430	JS		02/03/99	1716	TAS	5971
103131-3	02/02/99	1430	JS		02/03/99	2054	TAS	5971
103131-9	02/02/99	1430	JS		02/03/99	1819	TAS	5971
103131-10	02/02/99	1430	JS		02/03/99	1850	TAS	5971
103092-1	02/02/99	1430	JS		02/03/99	1921	TAS	5971
103092-2	02/02/99	1430	JS		02/03/99	1952	TAS	5971
103092-1DUP	02/02/99	1430	JS		03/04/99	2315	RAC	5973

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Analytical Services Inc. Batch QC
For Report Number :104092
Diesel Range Organics

Matrix : Solid

Batch # 45440

Method : EPA 8015B

Control Information		LC	LCD	LC	%Recovery	RPD
Analyte		%Rec	%Rec	RPD	Range	Range
Diesel		117	102	14	61 - 143	0 - 50
Matrix Spike Information		MS	MSD	MS	%Recovery	RPD
Analyte		%Rec	%Rec	RPD	Range	Range
Diesel		83	84	1	61 - 143	0 - 50

Analytical Services Inc. Batch QC

Surrogate Recovery

Diesel Range Organics

Matrix : Solid

Batch # 45440

Method : EPA 8015B

% Recovery Objectives

S1	n-Nonane	29 - 100
S2	n-Pentacosane	39 - 132

Sample	File	S1	S2	S3	S4	S5	S6
45440BLK	020299007R	73	87				
45440LCS	020299008R	95	101				
45440LCSD	020299009R	85	96				
104022-1MS	020299010R	59	68				
104022-1MSD	020299011R	60	73				
104022-1	020299012R	48	57				
104022-2	020299013R	62	71				
104022-2DUP	020299014R	62	78				
104022-3	020299015R	58	65				
104022-4	020299016R	56	61				
104022-5	020299019R	66	70				
104022-6	020299020R	48	55				
BLK02/02	020299021R	68	89				
103837-1	020299022R	59	71				
103837-2	020299023R	27	60				
103837-3	020299024R	34	68				
103837-4	020299025R	27	82				
103837-5	020299026R	47	83				
103837-6	020299027R	6	49				
BLK02/04	020499008R	65	72				
104092-16	020499009R	82	94				
104092-18	020499010R	66	83				
104092-20 D	020499011R	89	0				
^^Note: 1:10 DILUTION							
104092-22	020499012R	53	58				
104092-23	020499013R	45	62				
104092-24	020499014R	55	63				
104092-25 D	020499015R	98	82				
^^Note: 1:10 DILUTION							
104092-26 D	020499016R	81	60				
^^Note: 1:10 DILUTION							

2 2 0097

Q.C. Information for Batch # 45440

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Blank Results Information
Diesel Range Organics Method : EPA 8015B

Analyte	Blank Result	Detection Limit
Diesel Range Organics	BDL	7.0

Sample Batch Information
Diesel Range Organics Method : EPA 8015B

Sample ID	Preparation			Preparation Notes	Analysis			Inst #
	Date	Time	By		Date	Time	By	
4440BLK	01/29/99	0800	CP/SB		02/02/99	1303	JPH	GC-5
4440LCS	01/29/99	0800	CP/SB		02/02/99	1321	JPH	GC-5
4440LCSD	01/29/99	0800	CP/SB		02/02/99	1340	JPH	GC-5
14022-1MS	01/29/99	0800	CP/SB		02/02/99	1358	JPH	GC-5
14022-1MSD	01/29/99	0800	CP/SB		02/02/99	1416	JPH	GC-5
14022-2DUP	01/29/99	0800	CP/SB		02/02/99	1511	JPH	GC-5
14022-1	01/29/99	0800	CP/SB		02/02/99	1434	JPH	GC-5
14022-2	01/29/99	0800	CP/SB		02/02/99	1452	JPH	GC-5
14022-3	01/29/99	0800	CP/SB		02/02/99	1529	JPH	GC-5
14022-4	01/29/99	0800	CP/SB		02/02/99	1547	JPH	GC-5
14022-5	01/29/99	0800	CP/SB		02/02/99	1642	JPH	GC-5
14022-6	01/29/99	0800	CP/SB		02/02/99	1700	JPH	GC-5
BK02/02	02/02/98	1030	CP/SB		02/02/99	1718	JPH	GC-5
13837-1	02/02/98	1030	CP/SB		02/02/99	1737	JPH	GC-5
13837-2	02/02/98	1030	CP/SB		02/02/99	1755	JPH	GC-5
13837-3	02/02/98	1030	CP/SB		02/02/99	1813	JPH	GC-5
13837-4	02/02/98	1030	CP/SB		02/02/99	1832	JPH	GC-5
13837-5	02/02/98	1030	CP/SB		02/02/99	1850	JPH	GC-5
13837-6	02/02/98	1030	CP/SB		02/02/99	1908	JPH	GC-5
K02/04	02/04/98	1100	SB		02/04/99	1453	JPH	GC-5
1092-16	02/04/98	1100	SB		02/04/99	1511	JPH	GC-5
1092-18	02/04/98	1100	SB		02/04/99	1530	JPH	GC-5
1092-20	02/04/98	1100	SB		/	/		
1092-22	02/04/98	1100	SB		02/04/99	1606	JPH	GC-5
1092-23	02/04/98	1100	SB		02/04/99	1625	JPH	GC-5
1092-24	02/04/98	1100	SB		02/04/99	1643	JPH	GC-5
1092-25	02/04/98	1100	SB		/	/		
1092-26	02/04/98	1100	SB		/	/		
1092-20 D	/	/			02/04/99	1548	JPH	GC-5
1092-25 D	/	/			02/04/99	1701	JPH	GC-5
1092-26 D	/	/			02/04/99	1720	JPH	GC-5

Analytical Services Inc. Batch QC
For Report Number :104092
Base Neutrals / Acids

Matrix : Soil/Sediment

Batch # 45561

Method : EPA 8270

b Control Information		LC	LCD	LC	%Recovery	RPD
Analyte		%Rec	%Rec	RPD	Range	Range
Phenol		62	63	2	26 - 90	0 - 35
2-Chlorophenol		63	63	0	25 - 102	0 - 50
1,4-Dichlorobenzene		57	58	2	28 - 104	0 - 27
N-Nitrosodipropylamine		71	72	1	41 - 126	0 - 38
1,2,4-Trichlorobenzene		63	63	0	38 - 107	0 - 23
4-Chloro-3-methylphenol		65	66	1	26 - 103	0 - 33
Acenaphthene		73	75	3	31 - 137	0 - 19
2,4-Dinitrotoluene		60	60	1	28 - 89	0 - 47
4-Nitrophenol		53	57	7	11 - 114	0 - 50
Pentachlorophenol		56	58	5	17 - 109	0 - 47
Pyrene		95	98	3	35 - 142	0 - 36

Matrix Spike Information		MS	MSD	MS	%Recovery	RPD
Analyte		%Rec	%Rec	RPD	Range	Range
Phenol		51	50	3	26 - 90	0 - 35
2-Chlorophenol		25	43	53	25 - 102	0 - 50
1,4-Dichlorobenzene		49	49	0	28 - 104	0 - 27
N-Nitrosodipropylamine		112	110	2	41 - 126	0 - 38
1,2,4-Trichlorobenzene		64	66	3	38 - 107	0 - 23
4-Chloro-3-methylphenol		148	142	4	26 - 103	0 - 33
Acenaphthene		73	91	21	31 - 137	0 - 19
2,4-Dinitrotoluene		42	43	0	28 - 89	0 - 47
4-Nitrophenol		35	32	7	11 - 114	0 - 50
Pentachlorophenol		12	15	21	17 - 109	0 - 47
Pyrene		68	63	7	35 - 142	0 - 36

Matrix : Soil/Sediment Base Neutrals / A Batch # 45561

Method : EPA 8270

% Recovery Objectives

S1	2-Fluorophenol	25 - 121
S2	Phenol-d5	24 - 113
S3	Nitrobenzene-d5	23 - 120
S4	2-Fluorobiphenyl	30 - 115
S5	2,4,6-Tribromophenol	19 - 122
S6	Terphenyl-d14	18 - 137

Sample	File	S1	S2	S3	S4	S5	S6
45561BLK	B0644	50	48	47	55	36	96
45561LCS	B0647	73	66	68	75	69	106
45561LCSD	B0648	76	67	72	79	74	107
104105-1	B0650	0	0	62	69	0	104
^^Note: PAH ONLY							
104105-2	B0651	0	0	66	76	0	101
^^Note: PAH ONLY							
104105-3	B0652	0	0	54	60	0	93
^^Note: PAH ONLY							
104105-4	B0653	0	0	48	58	0	86
^^Note: PAH ONLY							
104067	B0659	0	0	0	0	0	0
^^Note: NO USABLE DATA							
104067DUP	B0660	0	0	0	0	0	0
^^Note: NO USABLE DATA							
104067MS	B0661	0	0	0	0	0	0
^^Note: NO USABLE DATA							
104067MSD	B0662	0	0	0	0	0	0
^^Note: NO USABLE DATA							
104067D	B0672	49	53	144	85	62	152
^^Note: 1:10;MATRIX EFFECT							
104067MS D	B0685	54	179	140	83	48	75
^^Note: 1:10 DILUTION;MATRIX EFFECT							
104067MSD D	B0686	59	198	144	79	45	73
^^Note: 1:10 DILUTION;MATRIX EFFECT							

Analytical Services Inc. Batch QC

Surrogate Recovery

Base Neutrals / Acids

Matrix : Soil/Sediment Batch # 45561

Method : EPA 8270

% Recovery Objectives

S1	2-Fluorophenol	25 - 121
S2	Phenol-d5	24 - 113
S3	Nitrobenzene-d5	23 - 120
S4	2-Fluorobiphenyl	30 - 115
S5	2,4,6-Tribromophenol	19 - 122
S6	Terphenyl-d14	18 - 137

Sample	File	S1	S2	S3	S4	S5	S6
104067DUP D	B0687	57	163	134	82	45	72
^^Note: 1:10 DILUTION;MATRIX EFFECT							
104170-2BN	B0712	0	0	57	57	0	18
104170-1BN	B0711	0	0	45	45	0	12
^^Note: Matrix interference							
104157-1BN	B0713	0	0	68	68	0	89
104170-1ACID	B0715	72	51	0	0	84	0
104157-1ACID	B0714	74	52	0	0	88	0
104170-2ACID	B0716	79	57	0	0	94	0
104365-1	B0759	23	32	42	46	51	38
^^Note: fv=2ml;matrix effect							
104092-21	B0749	65	62	71	69	79	84
104092-15	B0750	51	50	55	59	64	82
104092-19	B0751	37	40	49	49	53	43
104092-17	B0752	43	44	47	53	65	139
^^Note: Matrix interference							
104092-15D	B0794	41	39	41	49	41	55
^^Note: 1:10 DILUTION							
104131-4	A5124	0	0	0	0	0	0
^^Note: 1:250; SURR DILUTED OUT							
104131-5	A5125	0	0	0	0	0	0
^^Note: 1:100;SURR DILUTED OUT							
104131-7	A5126	0	0	0	0	0	0
^^Note: 1:200;SURR DILUTED OUT							
BLK02/06	B0793	59	53	60	62	58	90
BLK02/08	B0840	74	66	73	70	75	113
BLK02/05	B0841	79	73	83	76	89	104

Analytical Services Inc. Batch QC

Surrogate Recovery

Base Neutrals / Acids

Matrix : Soil/Sediment Batch # 45561

Method : EPA 8270

% Recovery Objectives

S1	2-Fluorophenol	25 - 121
S2	Phenol-d5	24 - 113
S3	Nitrobenzene-d5	23 - 120
S4	2-Fluorobiphenyl	30 - 115
S5	2,4,6-Tribromophenol	19 - 122
S6	Terphenyl-d14	18 - 137

Sample	File	S1	S2	S3	S4	S5	S6
104284-9	B0915	54	72	81	65	98	87
104364-2	B0916	61	60	64	48	87	123
BLK02/02	A5058	52	49	54	63	56	67
BLK02/03	B0743	47	29	87	85	79	111
104266-2	B0945	63	66	71	75	72	85
104266-1	B0973	55	61	60	74	90	119

Blank Results Information
Base Neutrals / Acids Method : EPA 8270

Analyte	Blank Result	Detection Limit
4-Chloro-3-methylphenol	BDL	330
2-Chlorophenol	BDL	330
2,4-Dichlorophenol	BDL	330
2,4-Dimethylphenol	BDL	330
4,6-Dinitro-2-methylphenol	BDL	330
2,4-Dinitrophenol	BDL	1700
2-Methylphenol	BDL	1700
4-Methylphenol	BDL	330
2-Nitrophenol	BDL	330
4-Nitrophenol	BDL	1700
Pentachlorophenol	BDL	1700
Phenol	BDL	660
2,4,5-Trichlorophenol	BDL	330
2,4,6-Trichlorophenol	BDL	330
Acenaphthene	BDL	330
Acenaphthylene	BDL	330
Anthracene	BDL	330
Benzoic Acid	BDL	330
Benzo(a)anthracene	BDL	1700
Benzo(b)fluoranthene	BDL	330
Benzo(k)fluoranthene	BDL	330
Benzo(ghi)perylene	BDL	330
Benzo(a)pyrene	BDL	330
Benzyl Alcohol	BDL	330
Bis(2-chloroethoxy)methane	BDL	660
Bis(2-chloroethyl)ether	BDL	330
Bis(2-chloroisopropyl)ether	BDL	330
Bis(2-ethylhexyl)phthalate	BDL	330
4-Bromophenyl phenyl ether	BDL	330
Benzyl butyl phthalate	BDL	330
4-Chloroaniline	BDL	330
2-Chloronaphthalene	BDL	660
4-Chlorophenyl phenyl ether	BDL	330
Chrysene	BDL	330
Dibenzo(a,h)anthracene	BDL	330
Dibenzofuran	BDL	330
Di-n-butylphthalate	BDL	330
1,3-Dichlorobenzene	BDL	330
1,4-Dichlorobenzene	BDL	330
1,2-Dichlorobenzene	BDL	330
3,3'-Dichlorobenzidine	BDL	330
Diethylphthalate	BDL	660
Dimethylphthalate	BDL	330
2,4-Dinitrotoluene	BDL	330
2,6-Dinitrotoluene	BDL	660
Di-n-octylphthalate	BDL	660
Fluoranthene	BDL	330
Fluorene	BDL	330
Hexachlorobenzene	BDL	330

Blank Results Information
Base Neutrals / Acids Method : EPA 8270

Analyte	Blank Result	Detection Limit
Hexachlorobutadiene	BDL	330
Hexachlorocyclopentadiene	BDL	330
Hexachloroethane	BDL	330
Indeno(1,2,3-cd)pyrene	BDL	330
Isophorone	BDL	330
2-Methylnaphthalene	BDL	330
Naphthalene	BDL	330
2-Nitroaniline	BDL	330
3-Nitroaniline	BDL	1700
4-Nitroaniline	BDL	1700
Nitrobenzene	BDL	1700
N-Nitrosodimethylamine	BDL	330
N-Nitrosodiphenylamine	BDL	330
N-Nitrosodi-n-propylamine	BDL	330
Phenanthrene	BDL	330
Pyrene	BDL	330
1,2,4-Trichlorobenzene	BDL	330

Sample Batch Information
Base Neutrals / Acids Method : EPA 8270

Sample ID	Preparation			Preparation Notes	Analysis			Inst #
	Date	Time	By		Date	Time	By	
14067MS	02/01/99	1415	CP/JW		02/02/99	1925	TAS	5971
14067MSD	02/01/99	1415	CP/JW		02/02/99	1956	TAS	5971
14067	02/01/99	1415	CP/JW		02/02/99	1822	TAS	5971
14067DUP	02/01/99	1415	CP/JW		02/02/99	1853	TAS	5971
14105-1	02/01/99	1415	CP/JW		02/02/99	1339	TAS	5971
14105-2	02/01/99	1415	CP/JW		02/02/99	1410	TAS	5971
14105-3	02/01/99	1415	CP/JW		02/02/99	1441	TAS	5971
14105-4	02/01/99	1415	CP/JW		02/02/99	1513	TAS	5971
14131-4	02/02/99	1030	CP/SB		02/05/99	0909	RAC	5973
14131-5	02/02/99	1030	CP/SB		02/05/99	0941	RAC	5973
14131-7	02/02/99	1030	CP/SB		02/05/99	1013	RAC	5973
14092-15	02/03/99	1000	SB		02/06/99	1618	RAC	5971
14092-17	02/03/99	1000	SB		02/06/99	1725	RAC	5971
14092-19	02/03/99	1000	SB		02/06/99	1651	RAC	5971
14092-21	02/03/99	1000	SB		02/06/99	1544	RAC	5971
BL02/02	02/02/99	1015	CP/JW		02/03/99	1818	TAS	5973
BL02/03	02/03/99	1000	SB		02/06/99	1229	TAS	5971
4561BLK	02/01/99	1415	CP/JW		02/02/99	1029	TAS	5971
4561LCS	02/01/99	1415	CP/JW		02/02/99	1205	TAS	5971
4561LCS D	02/01/99	1415	CP/JW		02/02/99	1236	TAS	5971
10067D	/	/			02/03/99	1439	TAS	5971
10067MS D	/	/			02/03/99	2125	RAC	5971
10067MSD D	/	/			02/03/99	2156	RAC	5971
10067DUP D	/	/			02/03/99	2227	RAC	5971
10170-2BN	02/03/99	1000	SB		02/05/99	1850	RAC	5971
10170-1BN	02/03/99	1000	SB		02/05/99	1817	RAC	5971
10157-1BN	02/03/99	1000	SB		02/05/99	1923	RAC	5971
101365-1	02/06/99	1335	SB		02/06/99	2119	rac	5971
101092-15D	/	/			02/06/99	1730	RAC	5971
10157-1ACID	02/04/99	1400	SB		02/05/99	1957	RAC	5971
10170-1ACID	02/04/99	1400	SB		02/05/99	2030	RAC	5971
10170-2ACID	02/04/99	1400	SB		02/05/99	2103	RAC	5971
BL02/05	02/05/99	1400	SB		02/09/99	2121	TAS	5971
101266-1	02/05/99	1400	SB		02/15/99	1334	TAS	5971
101266-2	02/05/99	1400	SB		02/14/99	1620	TAS	5971
BL02/06	02/06/99	1335	SB		02/07/99	1657	TAS	5971
BL02/08	02/08/99	1000	SB		02/09/99	2048	TAS	5971
101364-2	02/08/99	1000	SB		02/11/99	1952	TAS	5971
101284-9	02/08/99	1000	SB		02/11/99	1918	TAS	5971

Analytical Services Inc. Batch QC
For Report Number :104092
PCB's

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Matrix : Oil

Batch # 45577

Method : EPA 8082

Lab Control Information		LC	LCD	LC	%Recovery	RPD
Analyte		%Rec	%Rec	RPD	Range	Range
P B 1016		106	102	4	50 - 150	0 - 50
P B 1260		106	105	1	50 - 150	0 - 50
Matrix Spike Information		MS	MSD	MS	%Recovery	RPD
Analyte		%Rec	%Rec	RPD	Range	Range
P B 1016		200	256	25	50 - 150	0 - 50
P B 1260		69	89	25	50 - 150	0 - 50

Analytical Services Inc. Batch QC
 Surrogate Recovery
 PCB's

Matrix : Oil

Batch # 45577

Method : EPA 8082

% Recovery Objectives

S1	Tetrachloro-m-xylene	26 - 137
S2	Decachlorobiphenyl	20 - 144

Sample	File	S1	S2	S3	S4	S5	S6
45577BLK	020299002R	93	101				
45577LCS	020299003R	94	103				
45577LCSD	020299004R	91	99				
104092-9MS D	020299005R	78	121				
^^Note: 1:10 DILUTION							
104092-9MSD D	020299006R	82	125				
^^Note: 1:10 DILUTION							
104092-7 D	020299007R	93	183				
^^Note: 1:10 DILUTION							
104092-7DUP D	020299008R	6	165				
^^Note: 1:10 DILUTION							
104092-8 D	020299009R	79	192				
^^Note: 1:10 DILUTION							
104092-9 D	020299010R	75	100				
^^Note: 1:10 DILUTION							
104092-10 D	020299011R	90	144				
^^Note: 1:10 DILUTION							
104092-11 D	020299014R	82	95				
^^Note: 1:10 DILUTION							
104092-12 D	020299015R	85	162				
^^Note: 1:10 DILUTION							
104092-13 D	020299016R	94	132				
^^Note: 1:10 DILUTION							
104092-14 D	020299017R	79	141				
^^Note: 1:10 DILUTION							
104133-1	020299018R	68	65				
104133-2	020299019R	78	87				
BLK02/05	020599002R	88	106				

Analytical Services Inc. Batch QC
 Surrogate Recovery
 PCB's

Matrix : Oil

Batch # 45577

Method : EPA 8082

% Recovery Objectives

S1	Tetrachloro-m-xylene	26 - 137
S2	Decachlorobiphenyl	20 - 144

Sample	File	S1	S2	S3	S4	S5	S6
104305	020599003R	76	101				
BLK02/08	020999008R	81	93				
104364-1	020999009R	79	110				
BLK02/09	020999010R	83	113				
104386-1	020999011R	91	132				
104386-2	020999014R	101	141				
104386-3	020999015R	72	144				
104386-4	020999016R	70	98				
104386-5	020999017R	52	81				
104386-6	020999018R	65	101				
104386-7	020999019R	62	122				
104386-8	020999020R	109	130				

2 2 0109

Q.C. Information for Batch # 45577

Page 24
Printed: 02/17/99 15:14:49Blank Results Information
PCB's Method : EPA 8082

Analyte	Blank Result	Detection Limit
PCB 1016	BDL	5000
PCB 1221	BDL	5000
PCB 1232	BDL	5000
PCB 1242	BDL	5000
PCB 1248	BDL	5000
PCB 1254	BDL	5000
PCB 1260	BDL	5000

Sample Batch Information
PCB's Method : EPA 8082

Sample ID	Preparation			Preparation Notes	Analysis			Inst #
	Date	Time	By		Date	Time	By	
14092-9MS	02/02/99	1130	JS		/	/	JPH	GC-4
14092-9MSD	02/02/99	1130	JS		/	/	JPH	GC-4
14092-7DUP	02/02/99	1130	JS		/	/		
14092-7	02/02/99	1130	JS		/	/		
14092-8	02/02/99	1130	JS		/	/		
14092-9	02/02/99	1130	JS		/	/		
14092-10	02/02/99	1130	JS		/	/		
14092-11	02/02/99	1130	JS		/	/		
14092-12	02/02/99	1130	JS		/	/		
14092-13	02/02/99	1130	JS		/	/		
14092-14	02/02/99	1130	JS		/	/		
14133-1	02/02/99	1130	JS		02/02/99	2020	JPH	GC-4
14133-2	02/02/99	1130	JS		02/02/99	2036	JPH	GC-4
4577BLK	02/02/99	1130	JS		02/02/99	1602	JPH	GC-4
4577LCS	02/02/99	1130	JS		02/02/99	1618	JPH	GC-4
4577LCSD	02/02/99	1130	JS		02/02/99	1634	JPH	GC-4
14092-7 D	/	/			02/02/99	1723	JPH	GC-4
14092-8 D	/	/			02/02/99	1755	JPH	GC-4
14092-9 D	/	/			02/02/99	1811	JPH	GC-4
14092-10 D	/	/			02/02/99	1827	JPH	GC-4
14092-11 D	/	/			02/02/99	1916	JPH	GC-4
14092-12 D	/	/			02/02/99	1932	JPH	GC-4
14092-13 D	/	/			02/02/99	1948	JPH	GC-4
14092-14 D	/	/			02/02/99	2004	JPH	GC-4
14092-9MS D	/	/			02/02/99	1650	JPH	GC-4
14092-9MSD D	/	/			02/02/99	1707	JPH	GC-4
14092-7DUP D	/	/			02/02/99	1739	JPH	GC-4
BL02/05	02/05/99	1040	JS		02/05/99	1139	JPH	GC-4
10305	02/05/99	1040	JS		02/05/99	1252	JPH	GC-4
10364-1	02/08/99	1500	JS		02/09/99	1828	JPH	GC-4
10386-1	02/09/99	1100	JS		02/09/99	1900	JPH	GC-4
10386-2	02/09/99	1100	JS		02/09/99	1949	JPH	GC-4
10386-3	02/09/99	1100	JS		02/09/99	2005	JPH	GC-4
10386-4	02/09/99	1100	JS		02/09/99	2021	JPH	GC-4
10386-5	02/09/99	1100	JS		02/09/99	2038	JPH	GC-4
10386-6	02/09/99	1100	JS		02/09/99	2054	JPH	GC-4
10386-7	02/09/99	1100	JS		02/09/99	2110	JPH	GC-4
10386-8	02/09/99	1100	JS		02/09/99	2126	JPH	GC-4
BL02/09	02/09/99	1100	JS		02/09/99	1844	JPH	GC-4
BL02/08	02/08/99	1500	JS		02/09/99	1812	JPH	GC-4

Analytical Services Inc. Batch QC
For Report Number :104092
PCB's

Matrix : Solid

Batch # 45580

Method : EPA 8082

Lab Control Information		LC	LCD	LC	%Recovery	RPD
Analyte		%Rec	%Rec	RPD	Range	Range
CB 1016		63	80	23	50 - 150	0 - 50
CB 1260		65	84	26	50 - 150	0 - 50
Matrix Spike Information		MS	MSD	MS	%Recovery	RPD
Analyte		%Rec	%Rec	RPD	Range	Range
CB 1016		65	53	21	50 - 150	0 - 50
CB 1260		86	68	24	50 - 150	0 - 50

Analytical Services Inc. Batch QC
 Surrogate Recovery
 PCB's

Matrix : Solid

Batch # 45580

Method : EPA 8082

% Recovery Objectives

S1	Tetrachloro-m-xylene	13 - 110
S2	Decachlorobiphenyl	8 - 135

Sample	File	S1	S2	S3	S4	S5	S6
45580BLK	020399B009R	82	92				
45580LCS	020399B010R	66	73				
45580LCSD	020399B011R	76	90				
104092-15MS	020399B014R	62	81				
104092-15MSD	020399B015R	46	61				
104092-15	020399B016R	58	73				
104092-17	020399B017R	56	72				
104092-17DUP	020399B018R	61	71				
104092-19	020399B019R	56	68				
104092-21	020399B020R	57	86				
104170-1	020399B007R	82	123				
104170-2	020399B008R	43	81				
BLK02/03	020399B002R	75	98				
BLK02/08	020999002R	73	111				
104364-2	020999003R	50	62				
BLK02/10	021199006R	83	126				
104360-3	021199007R	62	75				
104448-1	021199008R	50	86				
104448-2	021199009R	46	72				
BLK02/08	021599B002R	88	112				
104508-1	021599B003R	68	75				
104508-2	021599B004R	72	71				
104508-3	021599B005R	66	100				
104508-4	021599B006R	69	78				

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Q.C. Information for Batch # 45580

Page 28
Printed: 02/17/99 15:14:50Blank Results Information
PCB's Method : EPA 8082

Analyte	Blank Result	Detection Limit
PCB 1016	BDL	33
PCB 1221	BDL	33
PCB 1232	BDL	33
PCB 1242	BDL	33
PCB 1248	BDL	33
PCB 1254	BDL	33
PCB 1260	BDL	33

2 2 0114

Q.C. Information for Batch # 45580

Page 29
Printed: 02/17/99 15:14:50Sample Batch Information
PCB's Method : EPA 8082

Sample ID	Preparation			Preparation Notes	Analysis			Inst #
	Date	Time	By		Date	Time	By	
580BLK	02/02/99	1030	CP/SB		02/03/99	1514	JPH	GC-4
580LCS	02/02/99	1030	CP/SB		02/03/99	1530	JPH	GC-4
580LCSD	02/02/99	1030	CP/SB		02/03/99	1546	JPH	GC-4
4092-15MS	02/02/99	1030	CP/SB		02/03/99	1634	JPH	GC-4
4092-15MSD	02/02/99	1030	CP/SB		02/03/99	1651	JPH	GC-4
4092-15	02/02/99	1030	CP/SB		02/03/99	1707	JPH	GC-4
4092-17	02/02/99	1030	CP/SB		02/03/99	1723	JPH	GC-4
4092-17DUP	02/02/99	1030	CP/SB		02/03/99	1739	JPH	GC-4
4092-19	02/02/99	1030	CP/SB		02/03/99	1755	JPH	GC-4
4092-21	02/02/99	1030	CP/SB		02/03/99	1812	JPH	GC-4
K02/03	02/03/99	1000	SB		02/03/99	1320	JPH	GC-4
4170-1	02/03/99	1000	SB		02/03/99	1441	JPH	GC-4
4170-2	02/03/99	1000	SB		02/03/99	1458	JPH	GC-4
K02/08	02/08/99	1000	SB		02/15/99	1054	JPH	GC-4
4269-1	02/08/99	1000	SB		/ /			
4269-2	02/08/99	1000	SB		/ /			
4364-2	02/08/99	1000	SB		02/09/99	1651	JPH	GC-4
K02/11	02/11/99	0800	SB		02/11/99	1911	JPH	GC-4
4360-3	02/11/99	0800	SB		02/11/99	1927	JPH	GC-4
4448-1	02/11/99	0800	SB		02/11/99	1944	JPH	GC-4
4448-2	02/11/99	0800	SB		02/11/99	2000	JPH	GC-4
4508-1	02/11/99	1430	SB		02/15/99	1110	JPH	GC-4
4508-2	02/11/99	1430	SB		02/15/99	1126	JPH	GC-4
4508-3	02/11/99	1430	SB		02/15/99	1142	JPH	GC-4
4508-4	02/11/99	1430	SB		02/15/99	1159	JPH	GC-4
4540-3	02/16/99	1130	SB		/ /			
4540-7	02/16/99	1130	SB		/ /			
K02/16	02/16/99	1130	SB		/ /			

Analytical Services Inc. Batch QC
 For Report Number :104092
 Base Neutrals / Acids

Matrix : Dilution		Batch # 45653		Method : EPA 8270		
Control Information		LC	LCD	LC	%Recovery	RPD
Analyte		%Rec	%Rec	RPD	Range	Range
Phenol		85	85	1	12 - 89	0 - 42
2-Chlorophenol		97	102	5	27 - 123	0 - 40
1,2-Dichlorobenzene		94	97	3	36 - 97	0 - 28
N-Nitrosodipropylamine		111	116	4	41 - 116	0 - 38
1,2,4-Trichlorobenzene		106	109	2	44 - 142	0 - 28
4-Chloro-3-methylphenol		96	93	3	23 - 97	0 - 42
Acenaphthene		95	97	3	46 - 118	0 - 31
2,4-Dinitrotoluene		85	91	7	24 - 96	0 - 38
4-Nitrophenol		70	70	0	10 - 80	0 - 50
Perachlorophenol		95	103	8	9 - 103	0 - 50
Pyrene		98	101	4	26 - 127	0 - 31
Matrix Spike Information		MS	MSD	MS	%Recovery	RPD
Analyte		%Rec	%Rec	RPD	Range	Range
Phenol		0	0	NC	12 - 89	0 - 42
2-Chlorophenol		0	0	NC	27 - 123	0 - 40
1,2-Dichlorobenzene		0	0	NC	36 - 97	0 - 28
N-Nitrosodipropylamine		0	0	NC	41 - 116	0 - 38
1,2,4-Trichlorobenzene		0	0	NC	44 - 142	0 - 28
4-Chloro-3-methylphenol		0	0	NC	23 - 97	0 - 42
Acenaphthene		0	0	NC	46 - 118	0 - 31
2,4-Dinitrotoluene		0	0	NC	24 - 96	0 - 38
4-Nitrophenol		0	0	NC	10 - 80	0 - 50
Perachlorophenol		0	0	NC	9 - 103	0 - 50
Pyrene		0	0	NC	26 - 127	0 - 31
NC Not Calculated						

Analytical Services Inc. Batch QC
 Surrogate Recovery
 Base Neutrals / Acids

Matrix : Dilution

Batch # 45653

Method : EPA 8270

% Recovery Objectives

S1	2-Fluorophenol	21 - 100
S2	Phenol-d5	10 - 94
S3	Nitrobenzene-d5	35 - 114
S4	2-Fluorobiphenyl	43 - 116
S5	2,4,6-Tribromophenol	10 - 123
S6	Terphenyl-d14	33 - 141

Sample	File	S1	S2	S3	S4	S5	S6
<hr/>							
45653BLK	A5094	90	92	112	93	114	117
45653LCS	A5095	93	78	111	102	116	111
45653LCSD	A5096	100	91	111	103	120	114
104092-3	A5117	83	79	113	97	113	118
104092-4	A5118	91	66	107	82	109	119
104092-5	A5119	87	79	80	80	118	127
104092-6	A5120	84	73	73	92	110	128
104131-6	A5121	80	83	112	93	80	106
104131-11	A5122	85	85	106	85	108	115
BLK2/8	B0842	92	91	100	78	81	90
104364-1	B0839	94	89	103	86	96	98
104377-1	A5327	65	91	105	106	91	92
104377-2	A5328	74	82	100	101	81	95

Blank Results Information
Base Neutrals / Acids Method : EPA 8270

Analyte	Blank Result	Detection Limit
4-Chloro-3-methylphenol	BDL	1000
2-Chlorophenol	BDL	1000
2,4-Dichlorophenol	BDL	1000
2,4-Dimethylphenol	BDL	1000
4,6-Dinitro-2-methylphenol	BDL	1000
2,4-Dinitrophenol	BDL	1000
2-Methylphenol	BDL	1000
4-Methylphenol	BDL	1000
2-Nitrophenol	BDL	1000
4-Nitrophenol	BDL	1000
Pentachlorophenol	BDL	1000
Phenol	BDL	1000
2,4,5-Trichlorophenol	BDL	1000
2,4,6-Trichlorophenol	BDL	1000
Acenaphthene	BDL	1000
Acenaphthylene	BDL	1000
Anthracene	BDL	1000
Benzoic Acid	BDL	1000
Benzo(a)anthracene	BDL	1000
Benzo(b)fluoranthene	BDL	1000
Benzo(k)fluoranthene	BDL	1000
Benzo(ghi)perylene	BDL	1000
Benzo(a)pyrene	BDL	1000
Benzyl Alcohol	BDL	1000
Bis(2-chloroethoxy)methane	BDL	1000
Bis(2-chloroethyl)ether	BDL	1000
Bis(2-chloroisopropyl)ether	BDL	1000
Bis(2-ethylhexyl)phthalate	BDL	1000
4-Bromophenyl phenyl ether	BDL	1000
Benzyl butyl phthalate	BDL	1000
4-Chloroaniline	BDL	1000
2-Chloronaphthalene	BDL	1000
4-Chlorophenyl phenyl ether	BDL	1000
Chrysene	BDL	1000
Dibenzo(a,h)anthracene	BDL	1000
Dibenzofuran	BDL	1000
Di-n-butylphthalate	BDL	1000
1,3-Dichlorobenzene	BDL	1000
1,4-Dichlorobenzene	BDL	1000
1,2-Dichlorobenzene	BDL	1000
3,3'-Dichlorobenzidine	BDL	1000
Diethylphthalate	BDL	1000
Dimethylphthalate	BDL	1000
2,4-Dinitrotoluene	BDL	1000
2,6-Dinitrotoluene	BDL	1000
Di-n-octylphthalate	BDL	1000
Fluoranthene	BDL	1000
Fluorene	BDL	1000
Hexachlorobenzene	BDL	1000

Q.C. Information for Batch # 45653

Printed: 02/17/99 15:14:51

Blank Results Information
Base Neutrals / Acids Method : EPA 8270

Analyte	Blank Result	Detection Limit
Hexachlorobutadiene	BDL	1000
Hexachlorocyclopentadiene	BDL	1000
Hexachloroethane	BDL	1000
Indeno(1,2,3-cd)pyrene	BDL	1000
Isophorone	BDL	1000
2-Methylnaphthalene	BDL	1000
Naphthalene	BDL	1000
2-Nitroaniline	BDL	1000
3-Nitroaniline	BDL	1000
4-Nitroaniline	BDL	1000
Nitrobenzene	BDL	1000
N-Nitrosodimethylamine	BDL	1000
N-Nitrosodiphenylamine	BDL	1000
N-Nitrosodi-n-propylamine	BDL	1000
Phenanthrene	BDL	1000
Pyrene	BDL	1000
1,2,4-Trichlorobenzene	BDL	1000

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Q.C. Information for Batch # 45653

Printed: 02/17/99 15:14:51

Sample Batch Information
Base Neutrals / Acids Method : EPA 8270

Sample ID	Preparation			Preparation Notes	Analysis			Inst #
	Date	Time	By		Date	Time	By	
6653BLK	02/04/99	1200	JS		02/04/99	1704	RAC	5973
6653LCS	02/04/99	1200	JS		02/04/99	1739	RAC	5973
6653LCSD	02/04/99	1200	JS		02/04/99	1813	RAC	5973
04092-5MS	02/04/99	1200	JS		/	/		
04092-5MSD	02/04/99	1200	JS		/	/		
04092-3	02/04/99	1200	JS		02/05/99	0526	RAC	5973
04092-4	02/04/99	1200	JS		02/05/99	0558	RAC	5973
04092-5	02/04/99	1200	JS		02/05/99	0630	RAC	5973
04092-6	02/04/99	1200	JS		02/05/99	0702	RAC	5973
04131-6	02/04/99	1200	JS		02/05/99	0733	RAC	5973
04131-11	02/04/99	1200	JS		02/05/99	0805	RAC	5973
BLK2/8	02/08/99	1500	JS		02/09/99	2155	TAS	5971
04364-1	02/08/99	1500	JS		02/09/99	2014	TAS	5971
04377-1	02/10/99	0900	JS		02/15/99	2230	RAC	5973
04377-2	02/10/99	0900	JS		02/15/99	2303	RAC	5973
BLK2/10	02/10/99	0900	JS		/	/		

Analytical Services Inc. Batch QC
 For Report Number :104092
 Volatile Organics

Matrix : Soil/Sediment

Batch # 45786

Method : EPA 8260

Lab Control Information Analyte	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
1,1-Dichloroethene	75	72	4	61 - 145	0 - 14
Trichloroethene	83	77	8	71 - 120	0 - 14
Benzene	88	82	7	76 - 127	0 - 11
Toluene	91	87	4	76 - 125	0 - 13
Chlorobenzene	81	85	6	75 - 130	0 - 13
Matrix Spike Information Analyte	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
1,1-Dichloroethene	80	80	1	61 - 145	0 - 14
Trichloroethene	85	80	6	71 - 120	0 - 14
Benzene	90	87	4	76 - 127	0 - 11
Toluene	97	93	4	76 - 125	0 - 13
Chlorobenzene	83	77	7	75 - 130	0 - 13

Matrix : Soil/Sediment Batch # 45786

Method : EPA 8260

% Recovery Objectives

S1	1,2-Dichloroethane-d4	75 - 130
S2	Toluene-d8	75 - 116
S3	Ethylbenzene-d10	70 - 127
S4	4-Bromofluorobenzene	70 - 121
S5	Dibromofluoromethane	75 - 130

Sample	File	S1	S2	S3	S4	S5	S6
45786LCS	C8731	106	105	94	92	95	
45786LCSD	C8732	105	105	97	86	95	
45786BLK	C8733	114	101	99	90	101	
104092-15	C8766	117	84	71	41	113	
104092-16	C8769	122	94	92	84	108	
104092-17	C8770	133	78	77	69	112	
104092-19	C8771	153	72	73	59	128	
104092-21	C8773	103	99	88	76	96	
104092-15DUP	C8795	111	92	102	100	103	
104092-17DUP	C8796	114	89	95	95	98	
104092-19DUP	C8797	133	67	78	78	115	
104092-16MS	C8802	104	99	98	98	99	
104092-16MSD	C8803	105	96	100	92	94	
104092-3	C8811	99	92	104	96	92	
104425-1	C8805	111	92	98	87	101	
^^Note: 5.87g							
104425-2	C8806	106	87	96	77	96	
^^Note: 6.06g							
104425-3	C8807	102	89	93	85	94	
^^Note: 5.78g							
104425-4	C8808	109	91	101	96	99	
^^Note: 5.85g							
104425-5	C8809	110	89	97	91	98	
^^Note: 5.84GM							
104425-1D	C8823	102	102	99	108	104	
^^Note: 1:50 DILUTION							
104425-2D	C8824	99	99	97	101	98	
^^Note: 1:50 DILUTION							
104425-3D	C8825	93	97	90	97	91	
^^Note: 1:50 DILUTION							

Matrix : Soil/Sediment Batch # 45786 Method : EPA 8260

S1	1,2-Dichloroethane-d4	75 - 130
S2	Toluene-d8	75 - 116
S3	Ethylbenzene-d10	70 - 127
S4	4-Bromofluorobenzene	70 - 121
S5	Dibromofluoromethane	75 - 130

Sample	File	S1	S2	S3	S4	S5	S6
104425-5D	C8826	96	109	103	92	99	
^^Note: 1:50 DILUTION							
45786BLK 02/10	C8822	105	92	96	95	99	
104364-1	C8838	114	73	84	72	103	
^^Note: 1:5 DILUTION/MATRIX EFFECT							
104364-2	C8883	143	103	102	116	118	
^^Note: 1:5 DILUTION/MATRIX EFFECT							
104266-1	C8840	115	79	80	85	107	
^^Note: 4.51GM							
104266-2	C8841	136	92	86	78	116	
^^Note: 4.03GM POOR PURGE							
45786BLK 02/11	C8849	99	94	99	94	97	
104451	C8850	97	100	99	101	91	
^^Note: 1:100 DILUTION							
104448-1	C8852	134	54	79	68	118	
^^Note: POOR PURGE							
104448-2	C8853	129	57	91	70	119	
^^Note: POOR PURGE							
104266-2DUP	C8854	112	88	95	97	110	
^^Note: 4.56GM							
104364-1D	C8855	102	88	99	92	95	
^^Note: 1:500 DILUTION							
45786BLK02/11	C8849	99	94	99	94	97	
104269-1	C8872	129	97	94	104	109	
104269-2	C8850	125	87	99	82	114	
^^Note: 1:5 DILUTION							

Analytical Services Inc. Batch QC

Surrogate Recovery

Volatile Organics

Matrix : Soil/Sediment Batch # 45786

Method : EPA 8260

% Recovery Objectives

S1	1,2-Dichloroethane-d4	75 - 130
S2	Toluene-d8	75 - 116
S3	Ethylbenzene-d10	70 - 127
S4	4-Bromofluorobenzene	70 - 121
S5	Dibromofluoromethane	75 - 130

Sample	File	S1	S2	S3	S4	S5	S6
104364-2DUP	C8852	136	88	82	87	120	
^^Note: 1:5 DILUTION/MATRIX EFFECT							
104364-2D	C8882	114	103	98	102	100	
^^Note: 1:50 DILUTION							
104364-1D2	C8884	108	100	98	94	103	
^^Note: 1:50 DILUTION							
45786BLK02/10	C8794	107	91	103	99	101	
45786BLK 2/11	C8868	102	95	99	107	100	
45786BLK 02/12	C8846	111	91	101	93	99	

Blank Results Information
Volatile Organics Method : EPA 8260

Analyte	Blank Result	Detection Limit
Acetone	BDL	100
Acrolein	BDL	50
Acrylonitrile	BDL	50
Benzene	BDL	2
Bromobenzene	BDL	10
Bromochloromethane	BDL	10
Bromodichloromethane	BDL	10
Bromoform	BDL	10
Bromomethane	BDL	10
2-Butanone	BDL	10
n-Butylbenzene	BDL	100
sec-Butylbenzene	BDL	10
tert-Butylbenzene	BDL	10
Carbon disulfide	BDL	10
Carbon tetrachloride	BDL	10
Chlorobenzene	BDL	2
Chloroethane	BDL	10
Chloroform	BDL	5
Chloromethane	BDL	2
2-Chlorotoluene	BDL	10
4-Chlorotoluene	BDL	10
2-Chloroethylvinyl ether	BDL	10
Dibromochloromethane	BDL	10
1,2-Dibromo-3-chloropropane	BDL	5
1,2-Dibromoethane	BDL	10
Dibromomethane	BDL	10
1,2-Dichlorobenzene	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10
Dichlorodifluoromethane	BDL	10
1,1-Dichloroethane	BDL	10
1,2-Dichloroethane	BDL	2
1,1-Dichloroethene	BDL	2
cis-1,2-Dichloroethene	BDL	2
trans-1,2-Dichloroethene	BDL	2
1,2-Dichloropropane	BDL	2
1,3-Dichloropropane	BDL	2
2,2-Dichloropropane	BDL	2
1,1-Dichloropropene	BDL	10
cis-1,3-Dichloropropene	BDL	10
trans-1,3-Dichloropropene	BDL	2
Ethylbenzene	BDL	2
Hexachlorobutadiene	BDL	2
2-Hexanone	BDL	10
Isopropylbenzene	BDL	10
p-Isopropyltoluene	BDL	10
Methylene chloride	BDL	10
4-Methyl-2-pentanone	BDL	5
Naphthalene	BDL	10
	BDL	10

Blank Results Information
Volatile Organics Method : EPA 8260

Analyte	Blank Result	Detection Limit
n-Propylbenzene	BDL	10
Styrene	BDL	5
1,1,1,2-Tetrachloroethane	BDL	2
1,1,2,2-Tetrachloroethane	BDL	2
Tetrachloroethene	BDL	2
Toluene	BDL	2
1,2,3-Trichlorobenzene	BDL	10
1,2,4-Trichlorobenzene	BDL	10
1,1,1-Trichloroethane	BDL	2
1,1,2-Trichloroethane	BDL	2
Trichloroethene	BDL	2
Trichlorofluoromethane	BDL	10
1,2,3-Trichloropropane	BDL	10
1,2,4-Trimethylbenzene	BDL	10
1,3,5-Trimethylbenzene	BDL	10
Vinyl acetate	BDL	10
Vinyl chloride	BDL	10
m+p-Xylene	BDL	5
o-Xylene	BDL	5
Xylenes	BDL	5

Sample Batch Information
Volatile Organics Method : EPA 8260

Sample ID	Preparation			Preparation Notes	Analysis			Inst #
	Date	Time	By		Date	Time	By	
5786LCS	/	/			02/08/99	0452	JTC	VOA3
5786LCSD	/	/			02/08/99	0521	JTC	VOA3
5786BLK	/	/			02/08/99	0550	JTC	VOA3
04092-15	/	/			02/09/99	0142	JTC	VOA3
04092-16	/	/			02/09/99	0309	JTC	VOA3
04092-17	/	/			02/09/99	0338	JTC	VOA3
04092-19	/	/			02/09/99	0407	JTC	VOA3
04092-21	/	/			02/09/99	0505	JTC	VOA3
04092-15DUP	/	/			02/10/99	0119	JTC	VOA3
04092-17DUP	/	/			02/10/99	0148	JTC	VOA3
04092-19DUP	/	/			02/10/99	0217	JTC	VOA3
04092-16MS	/	/			02/10/99	0443	JTC	VOA3
04092-16MSD	/	/			02/10/99	0512	JTC	VOA3
04092-3	/	/			02/10/99	0904	JTC	VOA3
04092-24	/	/			02/10/99	1031	JTC	VOA3
04092-25	/	/			02/10/99	1100	JTC	VOA3
04092-26	/	/			02/10/99	1130	JTC	VOA3
4425-1	/	/			02/10/99	0610	JTC	VOA3
4425-2	/	/			02/10/99	0639	JTC	VOA3
4425-3	/	/			02/10/99	0708	JTC	VOA3
4425-4	/	/			02/10/99	0737	JTC	VOA3
4425-5	/	/			02/10/99	0806	JTC	VOA3
4425-1D	/	/			02/10/99	1731	JTC	VOA3
4425-2D	/	/			02/10/99	1800	JTC	VOA3
4425-3D	/	/			02/10/99	1829	JTC	VOA3
4425-5D	/	/			02/10/99	1858	JTC	VOA3
4786BLK 02/10	/	/			02/10/99	1653	JTC	VOA3
14364-1	/	/			02/11/99	0050	JTC	VOA3
14364-2	/	/			02/12/99	0353	JTC	VOA3
14266-1	/	/			02/11/99	0149	JTC	VOA3
14266-2	/	/			02/11/99	0218	JTC	VOA3
4786BLK 02/11	/	/			02/11/99	1025	JTC	VOA3
14451	/	/			02/11/99	1054	JTC	VOA3
14448-1	/	/			02/11/99	1153	JTC	VOA3
14448-2	/	/			02/11/99	1222	JTC	VOA3
14266-2DUP	/	/			02/11/99	1251	JTC	VOA3
14364-1D	/	/			02/11/99	1320	JTC	VOA3
14269-1	/	/			02/11/99	2233	JTC	VOA3
14269-2	/	/			02/12/99	1427	JTC	VOA3
14364-2DUP	/	/			02/12/99	1547	JTC	VOA3
14364-2D	/	/			02/12/99	0324	JTC	VOA3
14364-1D2	/	/			02/12/99	0422	JTC	VOA3
4786BLK 02/12	/	/			02/12/99	1201	DR	VOA3
4786BLK02/11	/	/			02/11/99	1025	JTC	VOA3
4786BLK02/10	/	/			02/10/99	0050	DR	VOA3
786BLK 2/11	/	/			02/11/99	2036	DR	VOA3

Analytical Services Inc. Batch QC
For Report Number :104092
Gasoline Range Organics

Matrix : Solid

Batch # 45788

Method : 8260B

Lab Control Information		LC	LCD	LC	%Recovery	RPD
Analyte		%Rec	%Rec	RPD	Range	Range
Gasoline		97	95	2	67 - 136	0 - 50
Matrix Spike Information		MS	MSD	MS	%Recovery	RPD
Analyte		%Rec	%Rec	RPD	Range	Range
Gasoline		73	91	23	67 - 136	0 - 50

Matrix : Solid

Batch # 45788

Method : 8260B

% Recovery Objectives

S1	1,2-Dichloroethane-d4	70	-	121
S2	Toluene-d8	81	-	117
S3	Ethylbenzene-d10	79	-	115
S4	4-Bromofluorobenzene	74	-	121

[illegible]

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Q.C. Information for Batch # 45788

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Blank Results Information
Gasoline Range Organics Method : 8260B

Analyte	Blank Result	Detection Limit
Gasoline Range Organics	BDL	5.0

Q.C. Information for Batch # 45788

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Gasoline Range Organics Method : 8260B

Sample ID	Preparation			Preparation Notes	Analysis			Inst #
	Date	Time	By		Date	Time	By	
4788LCS	/	/			02/09/99	0044	LLP	VOA3
4788LCSD	/	/			02/09/99	0113	LLP	VOA3
14092-16MS	/	/			02/10/99	0344	LLP	VOA3
14092-16MSD	/	/			02/10/99	0414	LLP	VOA3
14092-16	/	/			02/09/99	0309	LLP	VOA3
14092-20	/	/			02/09/99	0436	LLP	VOA3
14092-22	/	/			02/09/99	0534	LLP	VOA3
14092-20DUP	/	/			02/10/99	0426	LLP	VOA3
14092-22DUP	/	/			02/10/99	0315	LLP	VOA3
14092-18	/	/			02/10/99	0933	LLP	VOA3
14092-24	/	/			02/10/99	1031	LLP	VOA3
14092-25	/	/			02/10/99	1100	LLP	VOA3
14092-26	/	/			02/10/99	1130	LLP	VOA3
14092-23	/	/			02/10/99	1957	JTC	VOA3
14092-16DUP	/	/			02/10/99	2026	JTC	VOA3
14092-16MSDDUP	/	/			02/11/99	0247	LLP	VOA3
14092-18D	/	/			02/11/99	0936	LLP	VOA3
4788BLK 02/11	/	/			02/11/99	1025	LLP	VOA3
1269-1	/	/			02/11/99	2233	LLP	VOA3
1269-2	/	/			01/12/99	1427	LLP	VOA3
1269-1D	/	/			02/12/99	1616	LLP	VOA3

Analytical Services Inc. Batch QC
 For Report Number :104092
 Volatile Organics

Matrix : Aqueous

Batch # 45789

Method : EPA 8260

Lab Control Information		LC	LCD	LC	%Recovery	RPD
Analyte		%Rec	%Rec	RPD	Range	Range
1,1-Dichloroethene		79	75	4	61 - 145	0 - 14
Trichloroethene		76	74	3	71 - 120	0 - 14
Benzene		81	76	7	76 - 127	0 - 11
Toluene		83	80	5	76 - 125	0 - 13
Chlorobenzene		86	82	5	75 - 130	0 - 13
Matrix Spike Information		MS	MSD	MS	%Recovery	RPD
Analyte		%Rec	%Rec	RPD	Range	Range
1,1-Dichloroethene		0	0	NC	61 - 145	0 - 14
Trichloroethene		0	0	NC	71 - 120	0 - 14
Benzene		0	0	NC	76 - 127	0 - 11
Toluene		0	0	NC	76 - 125	0 - 13
Chlorobenzene		0	0	NC	75 - 130	0 - 13

NC = Not Calculated

Analytical Services Inc. Batch QC
 Surrogate Recovery
 Volatile Organics

Matrix : Aqueous

Batch # 45789

Method : EPA 8260

% Recovery Objectives

S1	1,2-Dichloroethane-d4	76 - 119
S2	Toluene-d8	88 - 110
S3	Ethylbenzene-d10	75 - 115
S4	4-Bromofluorobenzene	86 - 120

Sample	File	S1	S2	S3	S4	S5	S6
45789BLK	A0700	89	101	111	97		
45789LCS	A0705	89	101	113	95		
45789LCSD	A0706	87	102	113	96		
45789BLK	A0720	80	101	108	97		
104092-1	A0715	84	102	106	102		
^^Note: 1:100,000 DILUTION							
104092-2	A0721	80	103	108	96		
^^Note: 1:1000 DILUTION							
104092-4	A0728	88	100	107	98		
^^Note: 1:1000 DILUTION							
104092-5	A0729	90	100	105	99		
^^Note: 1:1000 DILUTION							
104092-6	A0730	86	101	108	97		
^^Note: 1:1000 DILUTION							
45789BLK 02/10	B1252	103	91	104	91		
104092-2D	B1254	105	105	105	89		
^^Note: 1:5000 DILUTION							
104059-1	A0731	83	100	109	95		
104059-2	A0732	84	100	110	95		

Blank Results Information
Volatile Organics Method : EPA 8260

Analyte	Blank Result	Detection Limit
Acetone	BDL	100
Acrolein	BDL	50
Acrylonitrile	BDL	50
Benzene	BDL	2
Bromobenzene	BDL	10
Bromochloromethane	BDL	10
Bromodichloromethane	BDL	10
Bromoform	BDL	10
Bromomethane	BDL	10
2-Butanone	BDL	10
n-Butylbenzene	BDL	100
sec-Butylbenzene	BDL	10
tert-Butylbenzene	BDL	10
Carbon disulfide	BDL	10
Carbon tetrachloride	BDL	10
Chlorobenzene	BDL	2
Chloroethane	BDL	10
Chloroform	BDL	5
Chloromethane	BDL	2
2-Chlorotoluene	BDL	10
4-Chlorotoluene	BDL	10
2-Chloroethylvinyl ether	BDL	10
Dibromochloromethane	BDL	10
1,2-Dibromo-3-chloropropane	BDL	10
1,2-Dibromoethane	BDL	10
Dibromomethane	BDL	10
1,2-Dichlorobenzene	BDL	10
1,3-Dichlorobenzene	BDL	10
1,4-Dichlorobenzene	BDL	10
Dichlorodifluoromethane	BDL	10
1,1-Dichloroethane	BDL	10
1,2-Dichloroethane	BDL	2
1,1-Dichloroethene	BDL	2
cis-1,2-Dichloroethene	BDL	2
trans-1,2-Dichloroethene	BDL	2
1,2-Dichloropropane	BDL	2
1,3-Dichloropropane	BDL	2
2,2-Dichloropropane	BDL	2
1,1-Dichloropropene	BDL	10
cis-1,3-Dichloropropene	BDL	10
trans-1,3-Dichloropropene	BDL	2
Ethylbenzene	BDL	2
Hexachlorobutadiene	BDL	2
2-Hexanone	BDL	10
Isopropylbenzene	BDL	10
p-Isopropyltoluene	BDL	10
Methylene chloride	BDL	10
4-Methyl-2-pentanone	BDL	5
Naphthalene	BDL	10
	BDL	10

Blank Results Information
Volatile Organics Method : EPA 8260

Analyte	Blank Result	Detection Limit
n-Propylbenzene	BDL	10
Styrene	BDL	5
1,1,1,2-Tetrachloroethane	BDL	2
1,1,2,2-Tetrachloroethane	BDL	2
Tetrachloroethene	BDL	2
Toluene	BDL	2
1,2,3-Trichlorobenzene	BDL	10
1,2,4-Trichlorobenzene	BDL	10
1,1,1-Trichloroethane	BDL	2
1,1,2-Trichloroethane	BDL	2
Trichloroethene	BDL	2
Trichlorofluoromethane	BDL	10
1,2,3-Trichloropropane	BDL	10
1,2,4-Trimethylbenzene	BDL	10
1,3,5-Trimethylbenzene	BDL	10
Vinyl acetate	BDL	10
Vinyl chloride	BDL	10
m+p-Xylene	BDL	5
o-Xylene	BDL	5
Xylenes	BDL	5

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Q.C. Information for Batch # 45789

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Printed: 02/17/99 15:14:55Sample Batch Information
Volatile Organics Method : EPA 8260

Sample ID	Preparation			Preparation Notes	Analysis			Inst #
	Date	Time	By		Date	Time	By	
4589BLK	/	/			02/09/99	2252	LLP	VOA1
4589LCS	/	/			02/09/99	1205	LLP	VOA1
4589LCSD	/	/			02/09/99	1231	LLP	VOA1
10092-1	/	/			02/09/99	1745	LLP	VOA1
10092-2	/	/			02/09/99	2320	LLP	VOA1
10092-4	/	/			02/10/99	0237	LLP	VOA1
10092-5	/	/			02/10/99	0304	LLP	VOA1
10092-6	/	/			02/10/99	0330	LLP	VOA1
4589BLK 02/10	/	/			02/10/99	1530	DR	VOA2
10092-2D	/	/			02/10/99	1632	DR	VOA2
10059-1	/	/			02/10/99	0357	LLP	VOA1
10059-2	/	/			02/10/99	0423	LLP	VOA1

Analytical Services Inc. Batch QC
For Report Number :104092

Batch General Information					
Batch Number	Analyte	Analysis Method	Matrix	Blank Result	Prep. Method
4956	Hg	EPA 7471	Soil	<	0.0002
4192	Ign	EPA 1010	Aq/Solid		0.0000
4485	Se	EPA 7740	Soil	<	0.0050
4485	As	EPA 7060	Soil	<	0.0050
4485	Tl	EPA 7841	Soil	<	0.0020
4486	Ag	EPA 6010	Soil	<	0.0100
^^Note : BATCH PASSES ON LCS/LCSD/MSD/PDS					
4486	Al	EPA 6010	Soil	<	0.1000
4486	Ba	EPA 6010	Soil	<	0.0100
4486	Be	EPA 6010	Soil	<	0.0100
^^Note : BATCH PASSES ON LCS/LCSD//MS/PDS					
4486	Cd	EPA 6010	Soil	<	0.0100
^^Note : BATCH PASSES ON LCS/LCSD/MS					
4486	Co	EPA 6010	Soil	<	0.0400
4486	Cr	EPA 6010	Soil	<	0.0100
^^Note : BATCH PASSES ON LCS/LCSD/MS					
4486	Cu	EPA 6010	Soil	<	0.0200
4486	Fe	EPA 6010	Soil	<	0.0400
^^Note : BATCH PASSES ON LCS/LCSD					
4486	K	EPA 6010	Soil	<	0.2000
4486	Mg	EPA 6010	Soil	<	0.0500
^^Note : BATCH PASSES ON LCS/LCSD/MS					
4486	Mn	EPA 6010	Soil	<	0.0400
^^Note : BATCH PASSES ON LCS/LCSD/MS					
4486	Na	EPA 6010	Soil	<	0.4400
4486	Ni	EPA 6010	Soil	<	0.0200
4486	Pb	EPA 6010	Soil	<	0.0250
^^Note : BATCH PASSES ON LCS/LCSD/MS/PDS					
4486	Sb	EPA 6010	Solid	<	0.0500
^^Note : BATCH PASSES ON LCS/LCSD/PDS					
4486	V	EPA 6010	Soil	<	0.0200
4486	Zn	EPA 6010	Soil	<	0.0200
^^Note : BATCH PASSES ON LCS/LCSD/MS					
4518	BTU/lb	ASTM D 240	Aq/Solid		0.0000
4541	CN	EPA 9014	Aq/Solid	<	0.0200
4597	Cl	EPA 6500	Aq/Solid	<	0.1000
4597	F	EPA 6500	Aq/Solid	<	0.1000

Analytical Services Inc. Batch QC
For Report Number :104092

Control Information

Batch Number	Analyte	Method	LC %Rec	LCD %Rec	LC RPD	%Recovery Range	RPD Range
44956	Hg	EPA 7471	102	106	4	76 - 124	0 - 30
44485	Se	EPA 7740	109	96	13	76 - 124	0 - 30
44485	As	EPA 7060	88	85	3	76 - 124	0 - 30
44485	Tl	EPA 7841	115	106	8	76 - 124	0 - 30
44486	Ag	EPA 6010	90	100	11	76 - 124	0 - 30
44486	Al	EPA 6010	110	123	11	76 - 124	0 - 30
44486	Ba	EPA 6010	88	100	13	76 - 124	0 - 30
44486	Be	EPA 6010	83	96	15	76 - 124	0 - 30
44486	Cd	EPA 6010	81	93	14	76 - 124	0 - 30
44486	Co	EPA 6010	84	97	14	76 - 124	0 - 30
44486	Cr	EPA 6010	82	95	15	76 - 124	0 - 30
44486	Cu	EPA 6010	85	100	16	76 - 124	0 - 30
44486	Fe	EPA 6010	85	97	13	76 - 124	0 - 30
44486	K	EPA 6010	100	110	10	76 - 124	0 - 30
44486	Mg	EPA 6010	86	94	9	76 - 124	0 - 30
44486	Mn	EPA 6010	85	98	14	76 - 124	0 - 30
44486	Na	EPA 6010	100	110	10	76 - 124	0 - 30
44486	Ni	EPA 6010	84	96	13	76 - 124	0 - 30
44486	Pb	EPA 6010	82	94	14	76 - 124	0 - 30
44486	Sb	EPA 6010	83	96	15	76 - 124	0 - 30
44486	V	EPA 6010	87	100	14	76 - 124	0 - 30
44486	Zn	EPA 6010	86	96	11	76 - 124	0 - 30
45441	CN	EPA 9014	95	102	7	85 - 115	0 - 30
45497	Cl	EPA 6500	98	0	NC	75 - 125	0 - 30
45497	F	EPA 6500	95	0	NC	75 - 125	0 - 30

Matrix Spike Information

Batch Number	Analyte	Method	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
44456	Hg	EPA 7471	104	101	3	76 - 124	0 - 30
45485	Se	EPA 7740	108	112	4	76 - 124	0 - 30
45485	As	EPA 7060	85	82	4	76 - 124	0 - 30
45485	Tl	EPA 7841	108	109	1	76 - 124	0 - 30
45486	Ag	EPA 6010	170	81	71	76 - 124	0 - 30
45486	Al	EPA 6010	170	340	67	76 - 124	0 - 30
45486	Ba	EPA 6010	8	81	164	76 - 124	0 - 30
45486	Be	EPA 6010	81	75	8	76 - 124	0 - 30
45486	Cd	EPA 6010	80	73	9	76 - 124	0 - 30
45486	Co	EPA 6010	82	76	8	76 - 124	0 - 30
45486	Cr	EPA 6010	77	73	5	76 - 124	0 - 30
45486	Cu	EPA 6010	87	80	8	76 - 124	0 - 30
45486	Fe	EPA 6010	580	0	NC	76 - 124	0 - 30
45486	K	EPA 6010	93	89	4	76 - 124	0 - 30
45486	Mg	EPA 6010	79	73	8	76 - 124	0 - 30
45486	Mn	EPA 6010	85	74	14	76 - 124	0 - 30

Analytical Services Inc. Batch QC
For Report Number :104092

Matrix Spike Information

Batch Number	Analyte	Method	MS %Rec	MSD %Rec	MS RPD	%Recovery Range	RPD Range
4486	Na	EPA 6010	84	77	9	76 - 124	0 - 30
4486	Ni	EPA 6010	83	77	8	76 - 124	0 - 30
4486	Pb	EPA 6010	81	74	9	76 - 124	0 - 30
4486	Sb	EPA 6010	57	51	11	76 - 124	0 - 30
4486	V	EPA 6010	88	76	15	76 - 124	0 - 30
4486	Zn	EPA 6010	81	72	12	76 - 124	0 - 30
44741	CN	EPA 9014	97	96	1	75 - 125	0 - 30

Post Digestion Spike Information

Batch Number	Analyte	Method	PDS %Rec	%Recovery Range
4485	Se	EPA 7740	133	76 - 124
4485	As	EPA 7060	90	76 - 124
4485	Tl	EPA 7841	119	76 - 124
4486	Ag	EPA 6010	100	76 - 124
4486	Al	EPA 6010	0	76 - 124
4486	Ba	EPA 6010	80	76 - 124
4486	Be	EPA 6010	98	76 - 124
4486	Cd	EPA 6010	98	76 - 124
4486	Co	EPA 6010	93	76 - 124
4486	Cr	EPA 6010	77	76 - 124
4486	Cu	EPA 6010	90	76 - 124
4486	Fe	EPA 6010	620	76 - 124
4486	K	EPA 6010	80	76 - 124
4486	Mg	EPA 6010	20	76 - 124
4486	Na	EPA 6010	100	76 - 124
4486	Ni	EPA 6010	91	76 - 124
4486	Pb	EPA 6010	99	76 - 124
4486	Sb	EPA 6010	100	76 - 124
4486	V	EPA 6010	100	76 - 124
4486	Zn	EPA 6010	67	76 - 124

Unspiked Sample Duplicate Information

Batch Number	Analyte	Method	Sample 1 RPD	Sample 2 RPD	RPD Range
4456	Hg	EPA 7471	0		
4592	Ign	EPA 1010	0		0 - 30
4518	BTU/lb	ASTM D 240	0	0	0 - 20
4541	CN	EPA 9014	0	0	0 - 30
4597	Cl	EPA 6500	13		0 - 30
4597	F	EPA 6500	6		0 - 30

Sample Batch Information
Analysis : Hg

Sample ID	Tag	Preparation			Preparation Notes	Analysis			Inst
		Date	Time	By		Date	Time	By	
4956BLANK	HG	02/05/99	1200	CRB		02/05/99	1620	CRB	HG1
4956LCS	HG	02/05/99	1200	CRB		02/05/99	1623	CRB	HG1
4956LCSD	HG	02/05/99	1200	CRB		02/05/99	1625	CRB	HG1
1067MS	HG	02/05/99	1200	CRB		02/05/99	1630	CRB	HG1
1067MSD	HG	02/05/99	1200	CRB		02/05/99	1633	CRB	HG1
1067DUP	HG	02/05/99	1200	CRB		02/05/99	1635	CRB	HG1
1061-1	HG	02/04/99	1200	CRB		02/05/99	1638	CRB	HG1
1061-2	HG	02/04/99	1200	CRB		02/05/99	1640	CRB	HG1
1061-3	HG	02/04/99	1200	CRB		02/05/99	1643	CRB	HG1
1067	HG	02/04/99	1200	CRB		02/05/99	1628	CRB	HG1
1092-15	HG	02/04/99	1200	CRB		02/05/99	1651	CRB	HG1
1092-17	HG	02/04/99	1200	CRB		02/05/99	1653	CRB	HG1
1092-19	HG	02/04/99	1200	CRB		02/05/99	1656	CRB	HG1
1092-21	HG	02/04/99	1200	CRB		02/05/99	1658	CRB	HG1
1097-1	HG	02/04/99	1200	CRB		02/05/99	1509	CRB	HG1
1097-4	HG	02/04/99	1200	CRB		02/05/99	1511	CRB	HG1
1097-5	HG	02/04/99	1200	CRB		02/05/99	1514	CRB	HG1
10201	HG	02/04/99	1200	CRB		02/05/99	1713	CRB	HG1
10276-1	HG	02/04/99	1200	CRB		02/05/99	1703	CRB	HG1
276-2	HG	02/04/99	1200	CRB		02/05/99	1706	CRB	HG1

2 2 0140

Q.C. Information for Batch # 45192

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For Report Number :104092Sample Batch Information
Analysis : Ign

Sample ID	Tag	Preparation Date	Preparation Time By	Preparation Notes	Analysis Date	Analysis Time By	Inst
45192CALCHK		/	/		01/22/99	0750 AEG	
103680-3		/	/		01/22/99	0820 AEG	
103680-3DUP		/	/		01/22/99	0850 AEG	
103680-4		/	/		01/22/99	1045 JLP	
103680-5		/	/		01/22/99	1200 JLP	
103680-6		/	/		01/22/99	1230 JLP	
103680-2		/	/		01/21/99	2045 AEG	
103859		/	/		01/29/99	1230 AEG	
103834		/	/		01/29/99	1412 AEG	
103561AT1		/	/		02/02/99	1545 AEG	
103561AT1DUP		/	/		02/02/99	1545 AEG	
103044		/	/		02/03/99	1015 AEG	
103885		/	/		02/04/99	1610 AEG	
103290		/	/		02/08/99	1045 AEG	
103092-7		/	/		02/08/99	1250 AEG	
103092-8		/	/		02/08/99	1330 AEG	
103092-9		/	/		02/08/99	1355 AEG	
103092-10		/	/		02/08/99	1545 AEG	
103092-11		/	/		02/08/99	1630 AEG	
103092-12		/	/		02/08/99	1655 AEG	
103092-13		/	/		02/08/99	1750 AEG	
103092-14		/	/		02/08/99	1630 AEG	
103097-2		/	/		02/09/99	1410 KJ	

Sample Batch Information
Analysis : Se, As, Tl

Sample ID	Tag	Preparation			Preparation Notes	Analysis			Inst
		Date	Time	By		Date	Time	By	
485BLANK	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
485LCS	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
485LCSD	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4067MS	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4067MSD	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4067PDS	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4067DUP	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
3886	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4097-1	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4097-4	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4097-5	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4061-1	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4061-2	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4061-3	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4067	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4092-15	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4092-17	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4092-19	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4092-21	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4131-4	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4131-5	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4131-7	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
4131-8	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
H8S	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
H8S	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
SNDBLANK	Se	02/02/99	1030	ELK	GFAA	02/03/99	1235	RCP	AA3
485BLANK	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
485LCS	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
485LCSD	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
4067MS	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
4067MSD	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
4067PDS	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
4067DUP	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
886	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
4097-1	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
4097-4	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
4097-5	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
4061-1	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
4061-2	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
4061-3	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
4067	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
4092-15	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
4092-17	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
4092-19	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
4092-21	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
4131-4	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
4131-5	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
4131-7	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1

Sample Batch Information
Analysis : Se, As, Tl

Sample ID	Tag	Preparation			Preparation Notes	Analysis			Inst
		Date	Time	By		Date	Time	By	
04131-8	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
PS	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
PS	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
ANDBLANK	As	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
5485BLANK	Tl	02/02/99	1030	ELK	GFAA	02/03/99	1745	DCF	AA1
5485LCS	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
5485LCSD	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04067MS	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04067MSD	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04067PDS	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04067DUP	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
03886	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04097-1	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04097-4	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04097-5	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04061-1	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04061-2	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04061-3	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04067	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04092-15	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04092-17	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04092-19	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04092-21	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04131-4	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04131-5	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04131-7	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
04131-8	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
HS	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
HS	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3
SNDBLANK	Tl	02/02/99	1030	ELK	GFAA	02/04/99	1446	RCP	AA3

Sample Batch Information

Analysis : Ag, Al, Ba, Be, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb, Sb
V Zn

Sample ID	Preparation			Preparation Notes	Analysis			Inst
	Tag	Date	Time By		Date	Time	By	
486BLANK		02/02/99	0850 LP	TRACE	02/02/99	1859	FBS	ICP2
486LCS		02/02/99	0850 LP	TRACE	02/02/99	1903	FBS	ICP2
486LCSD		02/02/99	0850 LP	TRACE	02/02/99	1907	FBS	ICP2
1067MS		02/02/99	0850 LP	TRACE	02/02/99	1911	FBS	ICP2
1067MSD		02/02/99	0850 LP	TRACE	02/02/99	1915	FBS	ICP2
1067PDS		02/02/99	0850 LP	TRACE	02/02/99	1919	FBS	ICP2
1067DUP		02/02/99	0850 LP	TRACE	02/02/99	1923	FBS	ICP2
10916-84		02/02/99	0850 LP	TRACE	02/02/99	1931	FBS	ICP2
10916-85		02/02/99	0850 LP	TRACE	02/02/99	1935	FBS	ICP2
10916-86		02/02/99	0850 LP	TRACE	02/02/99	1951	FBS	ICP2
10916-87		02/02/99	0850 LP	TRACE	02/02/99	1955	FBS	ICP2
10916-88		02/02/99	0850 LP	TRACE	02/02/99	1959	FBS	ICP2
10916-89		02/02/99	0850 LP	TRACE	02/02/99	2003	FBS	ICP2
10916-90		02/02/99	0850 LP	TRACE	02/02/99	2007	FBS	ICP2
10661-1		02/02/99	0850 LP	TRACE	02/02/99	1836	FBS	ICP2
10661-2		02/02/99	0850 LP	TRACE	02/02/99	1839	FBS	ICP2
10661-3		02/02/99	0850 LP	TRACE	02/02/99	1843	FBS	ICP2
10667		02/02/99	0850 LP	TRACE	02/02/99	1927	FBS	ICP2
1092-15		02/02/99	0850 LP	TRACE	02/02/99	2010	FBS	ICP2
1092-17		02/02/99	0850 LP	TRACE	02/02/99	2014	FBS	ICP2
1092-19		02/02/99	0850 LP	TRACE	02/02/99	2018	FBS	ICP2
1092-21		02/02/99	0850 LP	TRACE	02/02/99	2022	FBS	ICP2
10997-1		02/02/99	0850 LP	TRACE	02/02/99	2026	FBS	ICP2
10997-4		02/02/99	0850 LP	TRACE	02/02/99	2042	FBS	ICP2
10997-5		02/02/99	0850 LP	TRACE	02/02/99	2058	FBS	ICP2
HP		02/02/99	0850 LP	TRACE	02/02/99	2102	FBS	ICP2
HP		02/02/99	0850 LP	TRACE	02/02/99	2106	FBS	ICP2
SA DBLANK		02/02/99	0850 LP	TRACE	02/02/99	2110	FBS	ICP2

Sample Batch Information
Analysis : BTU/lb

Sample ID	Tag	Preparation		Preparation Notes	Analysis			Inst
		Date	Time By		Date	Time	By	
ETH BLK		/	/		02/05/99	1020	ET/AG	
4092-7		/	/		02/05/99	1020	ET/AG	
4092-7DUP		/	/		02/05/99	1020	ET/AG	
4092-8		/	/		02/05/99	1020	ET/AG	
4092-9		/	/		02/05/99	1020	ET/AG	
4092-10		/	/		02/05/99	1020	ET/AG	
4092-11		/	/		02/05/99	1020	ET/AG	
4092-12		/	/		02/05/99	1020	ET/AG	
4092-14		/	/		02/05/99	1020	ET/AG	
4092-13		/	/		02/05/99	1020	ET/AG	

Sample Batch Information
Analysis : CN

Sample ID	Tag	Preparation			Preparation Notes	Analysis			Inst
		Date	Time	By		Date	Time	By	
4741BLK		02/08/99	0900	CM	MIDI-DIST	02/08/99	1200	CM	GEN
4741LCS		02/08/99	0900	CM	MIDI-DIST	02/08/99	1200	CM	GEN
4741LCSD		02/08/99	0900	CM	MIDI-DIST	02/08/99	1200	CM	GEN
14139-27MS		02/08/99	0900	CM	MIDI-DIST	02/08/99	1200	CM	GEN
14139-27MSD		02/08/99	0900	CM	MIDI-DIST	02/08/99	1200	CM	GEN
14139-27		02/08/99	0900	CM	MIDI-DIST	02/08/99	1200	CM	GEN
14139-28		02/08/99	0900	CM	MIDI-DIST	02/08/99	1200	CM	GEN
14139-17		02/08/99	0900	CM	MIDI-DIST	02/08/99	1200	CM	GEN
14139-19		02/08/99	0900	CM	MIDI-DIST	02/08/99	1200	CM	GEN
14139-19 DUP		02/08/99	0900	CM	MIDI-DIST	02/08/99	1200	CM	GEN
14139-21		02/08/99	1130	CM	MIDI-DIST	02/08/99	1200	CM	GEN
4741CAL5		02/08/99	1130	CM	MIDI-DIST	02/08/99	1500	CM	GEN
4741CAL15		02/08/99	1130	CM	MIDI-DIST	02/08/99	1500	CM	GEN
14139-23		02/08/99	1130	CM	MIDI-DIST	02/08/99	1500	CM	GEN
14185		02/08/99	1130	CM	MIDI-DIST	02/08/99	1500	CM	GEN
14192-1		02/08/99	1130	CM	MIDI-DIST	02/08/99	1500	CM	GEN
14192-2		02/08/99	1130	CM	MIDI-DIST	02/08/99	1500	CM	GEN
14192-3		02/08/99	1130	CM	MIDI-DIST	02/08/99	1500	CM	GEN
14192-4		02/08/99	1130	CM	MIDI-DIST	02/08/99	1500	CM	GEN
14192-4 DUP		02/08/99	1130	CM	MIDI-DIST	02/08/99	1500	CM	GEN
14092-15		02/08/99	1430	CM	MIDI-DIST	02/08/99	1500	CM	GEN
14092-17		02/08/99	1430	CM	MIDI-DIST	02/08/99	1700	CM	GEN
14092-19		02/08/99	1430	CM	MIDI-DIST	02/08/99	1700	CM	GEN
14092-21		02/08/99	1430	CM	MIDI-DIST	02/08/99	1700	CM	GEN
14157-1		02/08/99	1430	CM	MIDI-DIST	02/08/99	1700	CM	GEN
14170-1		02/08/99	1430	CM	MIDI-DIST	02/08/99	1700	CM	GEN
14170-2		02/08/99	1430	CM	MIDI-DIST	02/08/99	1700	CM	GEN
14191		02/08/99	1430	CM	MIDI-DIST	02/08/99	1700	CM	GEN
14196-1		02/08/99	1430	CM	MIDI-DIST	02/08/99	1700	CM	GEN

Sample Batch Information
Analysis : Cl, F

Sample ID	Tag	Preparation		Preparation Notes	Analysis			Inst
		Date	Time By		Date	Time	By	
4797BLK		/ /			02/07/99	2100	JN	CE
4797LCS		/ /			02/07/99	2100	JN	CE
4797CALCHK1		/ /		7 ANION	02/07/99	2100	JN	CE
4797CALCHK2		/ /		CL/FLUORIDE CHK	02/07/99	2100	JN	CE
14092-7		02/05/99	1200 AEG	1g/100	02/07/99	2100	JN	CE
14092-7DUP		02/05/99	1200 AEG	1g/100	02/07/99	2100	JN	CE
14092-8		02/05/99	1200 AEG	1g/100	02/07/99	2100	JN	CE
14092-9		02/05/99	1200 AEG	1g/100	02/07/99	2100	JN	CE
14092-10		02/05/99	1200 AEG	1g/100	02/07/99	2100	JN	CE
14092-11		02/05/99	1200 AEG	1g/100	02/07/99	2100	JN	CE
14092-12		02/05/99	1200 AEG	1g/100	02/07/99	2100	JN	CE
14092-13		02/05/99	1200 AEG	1g/100	02/07/99	2100	JN	CE
14092-14		02/05/99	1200 AEG	1g/100	02/07/99	2100	JN	CE
14092-9D		/ /		1:10 DILUTION	02/07/99	2100	JN	CE
14092-10D		/ /		1:10 DILUTION	02/07/99	2100	JN	CE
14092-11D		/ /		1:10 DILUTION	02/07/99	2100	JN	CE
14092-12D		/ /		1:10 DILUTION	02/07/99	2100	JN	CE
14092-13D		/ /		1:2 DILUTION	02/07/99	2100	JN	CE

**Tetra Tech EM Inc.**

Gwinnett Corporate Center ♦ 1750 Corporate Drive, Suite 735 ♦ Norcross, GA 30093 ♦ (770) 935-1542 ♦ FAX (770) 935-9049

March 15, 1999

John McKeown, On-Scene Coordinator
U.S. Environmental Protection Agency Region 4
Emergency Response and Removal Branch
61 Forsyth Street, SW, 11th Floor
Atlanta, Georgia 30303

**Subject: Industrial Pollution Controls Site Analytical Data
Jackson, Mississippi
Technical Direction Document No. 04-9901-0004**

Dear Mr. McKeown:

Enclosed is a copy of the analytical report for the Industrial Pollution Controls Site samples collected January 26 and 27, 1999. If you need additional copies of the report, please contact the Tetra Tech EM Inc. Superfund Technical Assessment and Response Team (START) office and we will be glad to provide you with them.

If you have any questions or comments regarding the data summary, please contact me at (770) 717-2332.

Sincerely,

Paula MacLaren
START Quality Assurance Officer

cc Douglas Thompson, Project Officer (letter only)
R. Steve Pierce, START Leader (letter only)
Greg Branham, Project Manager



2 7 0001 27516

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

FEB 18 1999

Russell Smith, Chief
Uncontrolled Sites Section, DEQ
P.O. Box 10385
Jackson, Mississippi 39289-0385

SUBJ: Potential State ARARs at the Industrial Pollution Control Site, Jackson,
Hinds County, Mississippi.

Dear Mr. Smith:

As the State has been informed, the Emergency Response and Removal Branch (ERRB) of the Environmental Protection Agency (EPA) is contemplating a removal action at the Industrial Pollution Control (IPC) site located in Jackson, Mississippi. To perform this action, EPA will attempt to comply to the extent practicable with all Applicable or Relevant and Appropriate Requirements (ARARs) of State environmental and facility siting laws. This letter is a request that the State notify the EPA On-Scene Coordinator (OSC) of any State statutes or regulations that the State believes are potential ARARs for the removal site, and contains information on site conditions and proposed actions to assist you in identifying ARARs.

We request that an appropriate State official identify potential State ARARs addressing the following categories: chemical-, location-, and action-specific requirements. Chemical-specific requirements are health-, technology-, or risk-based numeric values that establish the acceptable amount or concentration of a chemical that may be found in, or discharged to, the ambient environment. Location-specific requirements are restrictions placed on the concentrations of hazardous substances or the conduct of activities solely because they occur in special locations. For example, the requirement that hazardous waste storage facilities located within 100-year flood plains must be designed, constructed, operated, and maintained to avoid washout is considered a location-specific requirement. Action-specific requirements are technology- or activity-based requirements or limitations on actions taken with respect to hazardous waste.

The Industrial Pollution Control site is a former waste recycling facility located in Jackson, Mississippi. Its primary services included waste oil and water recovery and disposal, oil filter disposal, waste coolant disposal, sludge and solid disposal, sale of oil and solvent and a parts washer service.

The facility filed for bankruptcy in 1997. A variety of hazardous substances remain on-site, including over 240,000 gallons of what is believed to be contaminated #6 waste oil, approximately 240 55-gallon drums containing a variety of hazardous substances, approximately 200,000 gallons of wastewater, assorted laboratory chemicals and contaminated soil. The volume of contaminated soil will depend greatly on the clean-up levels established by EPA and MDEQ.

Please respond in a timely manner (within 14 days if possible) so that the requirements may be considered for the removal action. Exact references or citations to the statutes and regulations, or copies of pertinent provisions of these State requirements, will greatly facilitate our ability to evaluate these requirements as ARARs for the site. Also please call me at (404) 562-8767, if additional information on the site is needed.

These requirements will be examined to determine whether they are applicable or relevant and appropriate to the site. ERRB is required to comply with ARARs to the extent practicable, considering the exigencies of the situation. It is important to clarify, however, that some requirements identified by the State may be determined not to be ARARs or may be determined to be impracticable to meet or may qualify for a waiver.

Sincerely,



John A. McKeown, OSC
U.S. EPA, Region IV



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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

MAR 30 1999

ACTION MEMORANDUM

Subject: Request for a Removal Action at the Industrial Pollution Control (IPC) Site, in Jackson, Hinds County, Mississippi.

From: John A. McKeown
On-Scene Coordinator

To: Richard D. Green, Director
Waste Management Division

Site ID#: A4N1

I. PURPOSE:

The purpose of this Action Memorandum is to request and document approval of the proposed removal action described herein for the IPC Site, located in Jackson, Hinds County, Mississippi. The Mississippi Department of Environmental Quality (MDEQ) notified EPA about the Site in November of 1998. MDEQ has a long history of regulatory action at the now bankrupt facility. The IPC Site is currently non-operational with large volumes of contaminated waste oil, wastewater and hazardous substances.

II. SITE CONDITIONS AND BACKGROUND:

A. SITE DESCRIPTION:

1. Removal Site Evaluation:

The MDEQ contacted the Environmental Protection Agency's (EPA) Emergency Response and Removal Branch (ERRB) on November 4, 1998, requesting EPA to consider the IPC Site as a candidate for a future removal action. MDEQ included file material with some basic sketches, previous MDEQ enforcement orders and correspondence.

On December 11, 1998, EPA On-Scene Coordinator (OSC) John McKeown met with Ken Whitten and Eric Dear of MDEQ to conduct an initial assessment of the facility. EPA and MDEQ were granted access to conduct this assessment by Mr. Richard Montague, the attorney representing the facility owner in the bankruptcy. During the assessment, the EPA and MDEQ

representatives noted that numerous drums (some empty and some with contents) were stockpiled on-site in a storage shed. Some of the drums were in very poor condition and obviously contained corrosive materials. The storage tanks containing the waste oil were in poor condition and the secondary containment was not sufficiently impervious should a rupture of the tanks occur. Wastewater with a thick oily sheen was found in all secondary containment and overflowing at some locations on-site. The slope of the facility was toward the northeast in the direction of a small stream located across Terry Road approximately 70 meters away. The asphalt/concrete/soil ground surface was stained in many locations and an obvious black stain led from the tank storage area toward the northeast corner of the Site. Access to the building was restricted during this inspection.

The assessment conducted on December 11, 1998, prompted a decision to conduct a more detailed Removal Assessment. During the week of January 25, 1999, EPA and Superfund Technical Assessment and Response Team (START) conducted a Removal Assessment at the IPC Site which included collecting soil, tank and drum samples, conducting an inventory of tank and drum contents, performing limited hazardous categorization of specific drums based on appearance and Photo-Ionization Detector readings and interviewing previous employees and potential vendors for future disposal of the on-site waste oil. During the Removal Assessment, EPA was fortunate enough to receive a Site tour from Mr. Steve Pitre, the former facility manager. During the Site tour, Mr. Pitre described the basic plant operations including the use of each large volume storage tank. Mr. Pitre informed EPA that spent waste solvents from the parts washing process were added to the waste oil tanks as a standard operating procedure.

On March 1, 1999, the analytical data from the samples collected during the Removal Assessment was delivered to the EPA office. A brief summary of the analytical data is presented below:

<u>Drum Sampling</u>	<u>Soil Sampling</u>	<u>Tank Sampling</u>
8,900 ppm xylene	9.6 ppm anthracene	5,600-19,900 BTU
10,000 ppm trimethylbenzene	130 ppb xylene	134 - >212 Deg. F Ignitability
1,500 ppm phenanthrene	280 ppm diesel range organics	1,200-1,400 ppm Chlorides
1,200 ppm 2-methyl naphthalene		13 - 40 ppm Fluorides
1,100 ppm n-butylbenzene		

The Site is not on the National Priorities List (NPL). The Site may be considered for a Preliminary Assessment in the future to determine whether or not additional Remedial Action is needed.

2. Physical Location:

The IPC Site is located at 810 Poindexter Street in Jackson, Hinds County, Mississippi. The Site is located north of Interstate 20 and west of Interstate 55, between Terry Road and Poindexter Street approximately 1/4 mile east of Jackson State University. Geographic

coordinates for the Site are 32 deg. 17' 44" north latitude and 90 deg. 13' 5" west longitude. Poindexter Street borders the property to the west. The property is bordered to the north by Earle Street, which is no longer in use. Directly across Earle Street are the remaining concrete foundations of what used to be two apartment buildings. These separate the facility from its nearest residential area. An automobile transmission shop is located along the Site's eastern border, beyond the chain link fence and facing Terry Road. A triangular shaped commercially zoned lot borders the Site to the south. The Site was once bordered along the south by railroad tracks and an active railroad spur was once used to receive shipments of materials to the Site; however, the tracks have been removed and the commercially zoned lot is completely vacant of any structures.

The Site is located in an industrial/commercial/residential area. Terry Road is lined with businesses on both sides of the street. Several schools are located within 1/4 mile of the Site including the Reynolds School, Blackburn Junior High School and Enochs Junior High School. The most dominating characteristic of the area is its proximity to Jackson State University and to downtown Jackson, Mississippi. An "intermittent" stream is located along the east side of Terry Road which eventually empties into Town Creek. During the Removal Assessment in January, this stream had a constant water flow despite the lack of precipitation during the week.

3. Site Characteristics:

IPC began Site operations on September 1, 1991 and operated as a used oil recycling facility until filing for Chapter 11 bankruptcy in 1997. The facility appears to have been used to recycle oil under previous ownership predating September of 1991. Under IPC's ownership, the facility received, stored, treated, and processed various petroleum waste products and wastewater. The Site consisted of an office and maintenance building, a drum storage shed, and numerous tank storage areas which included a wastewater treatment system. The on-site liquid storage capacity was over 200,000 gallons. The company employed an average of 45 persons. The facility possessed a National Pollutant Discharge Elimination System (NPDES) pretreatment permit (MSP09616) to discharge to the publicly-owned treatment works, an air pollution control permit (1080-00207), and an individual storm water permit (MSS050041).

The IPC facility accepted waste oils and wastewater for treatment and recycling as its main operation. The oil and water was separated early in the process. The oil was heated and reconditioned for future sale or use. The water continued to undergo treatment until it met the criteria for discharge as specified in the facility's NPDES permit. IPC's list of acceptable waste waters included petroleum-based oils, coolants, groundwater (from underground storage tank remediation activities), bilge water, spent mineral oil, fuel oils, unrefined crude, salt water, and process water containing polymers. The facility also operated a parts washing service. The spent solvents were included in the acceptable wastewaters.

The Site is currently non-operational. A chain link fence surrounds most of the Site, however, a large gap along the southern border allows easy entry into the Site. The office and maintenance building are in good structural condition but the wiring and plumbing has been removed from the building. Also, there is evidence that trespassers are sleeping under the building. The drum storage building and the maintenance section of the main building contain over 250 drums with contents ranging from toxic solvents to corrosive materials.

The tank farm is located on the eastern portion of the Site. There are 12 horizontal tanks which were used for heating and storing of the recycled oil. Eleven large vertical tanks containing wastewater with varying degrees of oil and sludge are located in several locations in the tank farm area of the Site. Many of the vertical tanks have large portions of the top cut away. These tanks appeared to be full with the exception of one collapsed tank which was not in use. Approximately 5-7 small tanks were also located within the boundaries of the tank farm. These small tanks were used to store diesel fuel for delivery trucks and boiler fuel for the burner. At least two underground storage tanks have been identified and a large and dated tanker truck remains on-site.

The Site's slopes toward the northeast where the NPDES outfall was once located. This was also the area of the former oil/water separator which has been excavated. The ground surface is paved with asphalt and concrete throughout most of the Site; however, there are areas of bare soil and grass cover on-site. These areas are located in the northeast corner of the Site.

4. Release or Threatened Release into the Environment of a Hazardous Substance, or Pollutant or Contaminant:

Numerous hazardous substances, as defined by Section 101(14) of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), are present at elevated concentrations in soils on-site. Some of the hazardous substances present at the IPC facility are included below:

55 Gallon Drums:

- D002 - Drums were discovered in the drum storage shed with contents registering a pH reading of over 13 and drums were discovered in the maintenance shop with contents registering a pH reading of less than 2.
- CASRN - 100414 - Ethylbenzene - 540 mg/l
- CASRN - 1330207 - Xylene - 8,900 mg/l
- CASRN - 108101 - 4-methyl-2-pentanone - 590 mg/l
- CASRN - 85018 - Phenanthrene - 1,500 mg/l

Laboratory (1 Gallon Containers)

CASRN - 71432 - Benzene

CASRN - 1330207 - Xylene

Waste Oils/WasteWater Tanks

D001 - Based on the Site's operational history, the waste oil and wastewater tanks are likely to contain hazardous wastes. The tanks were sampled during the Removal Assessment but were not analyzed for hazardous substances. However, at least one waste oil tank can be classified as a RCRA hazardous waste due to an ignitability reading of 134 degrees F.

Contaminated Soil

The most likely contaminated soils could not be accessed due to the volume of wastewater contained within the secondary containment. Some of the hazardous substances detected in surface soil sampling include:

CASRN - 129000 - pyrene

CASRN - 71432 - benzene

CASRN - 86737 - flourene

CASRN - 1330207 - xylenc

CASRN - 120127 - anthracene

CASRN - 100414 - cthylbenzene

The hazardous substances found in the soils are believed to have been released from the contents of the tank farm and the loading and unloading of trucks in the area. The secondary containment within the tank farm has been constructed using cinder blocks and obvious cracks are present. The ground under the 12 horizontal waste oil tanks does not have an impervious liner whatsoever. During the Removal Assessment, the secondary containment was full of wastewater in some areas. It was also noted that the sides of the tanks and the inside of secondary containment walls were stained where the oil may have reached during previous spills or while being utilized for additional storage space.

Potential routes of release of the hazardous substances include:

- During heavy periods of precipitation or if a large tank should rupture, waste oil/water would migrate toward the northeast corner of the Site toward Terry Road and the intermittent stream.
- Drums containing caustic materials pose an acute hazard to children, workers or any individual who may enter the site property.

- Toxic chemicals in the laboratory and contained in drums on-site may pose a hazard to any individual who may come into contact with these materials.
- Hazardous substances in soils may migrate into the surficial aquifer beneath the Site.
- A fire and explosion hazard exists in at least one of the waste oil containers at the Site.

5. NPL Status:

The Site is not on the National Priorities List (NPL). The Site has been discovered and will require a Preliminary Assessment within one year per NCP 300.420 (b)(5)(iii).

6. Maps, Pictures, and Other Graphic Representations:

The following figures are enclosed;

Figure 1 - USGS Topographic Map depicting Site Location
Figure 2 - Site Layout Map

B. OTHER ACTIONS TO DATE:

1. Previous Actions:

All previous actions that have been undertaken at the IPC Site since the November, 1998 MDEQ notification letter to EPA are discussed in Section II (A, 1). However, MDEQ has regulated the facility since 1991. The Site's regulatory history is full of permit violations and MDEQ emergency responses. A brief summary of the permit violations and emergency responses are included below:

- Permit Violations:

- October 1992 - Violation of construction permit by constructing different processes than those approved.
- September 1993 - MDEQ Order #2628-93 substances stored in tanks, drums, and containers had a total halogen content that exceeded 1,000 ppm, and was presumed to be hazardous waste.
- December 1993 - MDEQ Order #2736-94 addressed violations including passing wastewater to the POTW, inadequate secondary containment, discharges to waters of the state and failure to report several organic and inorganic materials as required by their permit.
- September 1994 - EPA notified IPC that the facility was in violation of the Clean Water Act for improper implementation of the facility's SPCC plan.
- May - June 1997 - MDEQ Order #3441-97 addressed poor condition of oil storage tanks and secondary containment. IPC was ordered to stop accepting used

waste oil, recover all oil and solid wastes, inventory all drums, tanks and vats on-site and excavate contaminated soil on-site.

- November 1997 - (Blank Order - not signed) - Fined IPC \$202,500 and ordered compliance with Order #3441-97.

- Emergency Responses:

- April 22, 1992 - A yellowish liquid discharge was observed in an open ditch that appeared to be originating from the oil separator at the Site.

- July 24, 1992 - A white latex liquid was discharged from a tanker parked on the northern adjoining property. The discharge migrated to Town Creek.

- October 3, 1995 - A release of acidic vapors originating from a tanker truck at the Site was reported anonymously.

- February 10, 1997 - About 20 gallons of oil was released along the southern edge of the facility and migrated to the adjoining commercially zoned, vacant property. The source appeared to have been a pump hose that kicked out of the containment area.

- May 5, 1997 - Oil was observed discharging from a sewer line on Terry Road. One manhole adjacent to the IPC Site was filled with oil.

2. Current Actions:

No assessment or cleanup activities are taking place at this time.

C. STATE AND LOCAL AUTHORITIES' ROLE

1. State and Local Actions to Date:

As stated in Section II(B,1), the MDEQ has been involved with the IPC Site since 1992. The only additional involvement has been through the November, 1998 notification letter to EPA and the correspondence with Mr. Richard Montague, the facilities bankruptcy attorney, regarding cleanup and possible future use of the property. All other State related involvement issues have already been discussed.

2. Potential for Continued State and Local Response:

It is not anticipated that the Mississippi Department of Environmental Quality (MDEQ) or any local agencies will perform any additional response activities at the Site. MDEQ has been consulted on all Applicable or Relevant and Appropriate Requirements (ARARs) issues and the ERRB will continue to coordinate with the State of Mississippi and local agencies in order to keep them informed of future removal Site activities. MDEQ will play a significant role in the determination of ARARs regarding soil cleanup levels at the IPC Site due to the potential future purchase of the property by the State of Mississippi, acting through the Department of Finance and Administration for the use and benefit of Jackson State University.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES:

A. THREATS TO PUBLIC HEALTH OR WELFARE:

The hazardous substances listed in section II(A,4) present in soils, subsurface soils, storage tanks, drums and the laboratory pose the following threats to public health or welfare as listed in Section 300.415 (b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan:

- Section 300.415 (b)(2)(iii) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release. The IPC Site contains over 200,000 gallons of contaminated waste oil and wastewater which is stored inadequately in both primary and secondary containment. Since 1992, there have been numerous reported releases of hazardous substances and waste oils into nearby Town Creek. In addition to the contaminated waste oils and wastewater stored in tanks, over 240 55-gallon drums with contents ranging from corrosive material to spent waste solvents are located on-site along with a laboratory containing bulk quantities of VOCs. Some of the drums are in very poor condition and may pose an acute health risk to human populations who may traverse the Site.

- Section 300.415 (b)(2)(vi) Threat of fire or explosion. During the Removal Assessment, the contents of at least one of the waste oil tanks met the characteristics of a RCRA hazardous waste due to ignitability. Several drums containing solvents along with laboratory containers of bulk VOCs possess similar characteristics. During the hot summer months and with further degradation and separation within the containers, a potential fire and/or explosion will become more likely.

B. THREATS TO THE ENVIRONMENT:

The hazardous substances listed in section II(A,4) present in soils, subsurface soils, storage containers, drums and the laboratory pose the following threats to the environment as listed in Section 300.415 (b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan:

- Section 300.415 (b)(2)(ii) Actual or potential contamination of drinking water supplies or sensitive ecosystems. Based on the Site's past history of releases to Town Creek and the volume of waste oil and water stored inadequately on-site, a future release of a large volume of contaminated waste oil into Town Creek is imminent. The contents of the on-site storage

containers are known to be toxic to mammals, birds and aquatic life. Town Creek flows into the Pearl River, which contains a wide range of aquatic life and may be used as a drinking water intake for municipalities located downstream of Jackson, Mississippi.

- *Section 300.415 (b)(2)(iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface , that may migrate.* The on-site soils both under the tank farm and around the tank farm contain concentrations of hazardous substances. The highest concentrations are located directly under the twelve waste oil tanks. Many of the contaminants present in the on-site soil are known to be toxic to mammals, birds and aquatic life. A visible path of stained soil exists from the tank farm to the northeast corner of the Site indicating migration of contaminants off-site. Off-site migration of contaminants will enter Town Creek approximately 70 yards east of the northeast corner of the Site. Town Creek flows approximately 2 miles before entering the Pearl River.

IV ENDANGERMENT DETERMINATION:

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment.

V PROPOSED ACTION AND ESTIMATED COSTS:

A. PROPOSED ACTIONS:

1. Proposed Action Description:

The removal action will involve the following steps:

- Secure the facility by repairing breaches in the already existing chain-link security fence.
- Sample and HAZCAT all drums with contents to develop a bulking plan. Overpack any drums which are in poor condition. All drums and contents will be bulked, when possible, and shipped off-site for disposal.
- Inventory hazardous substances and bulk chemicals located in the laboratory. HAZCAT all unknowns and dispose of chemicals in laboratory packs.
- Sample all waste oils and fuels remaining on-site for contaminants and reuse value. Conduct a search for vendors who may be able to use or recycle the oil. Search criteria will be based on cost per gallon, vendors environmental compliance history and transportation and logistical issues.

- Sample large volumes of contaminated wastewater located in horizontal tanks and secondary containment. Develop a comparison between off-site disposal and treatment of the wastewater versus on-site treatment.
- Remove sludge from tanks and all other oil storage containers. Bulk the sludge and conduct TCLP analysis. The sludge will be disposed of off-site.
- Disassemble tanks and tank farm. Conduct a search for vendors who may purchase the tanks for future use or purchase the materials for scrap metal. All concrete and metal will be removed off-site for disposal.
- Excavate contaminated soils with the soil cleanup levels to be contaminant specific and established by EPA in consultation with EPA's Office of Technical Services, the Agency for Toxic Substances and Disease Registry and MDEQ.
- Evaluate treatment and disposal options for the contaminated soils, drums, drum contents, and debris.
- Dispose of and/or treat contaminated material while taking ARARs into consideration.
- If conditions warrant, collect one or more surface water or sediment samples from Town Creek. If surface water or sediment contamination exists in Town Creek, appropriate action will be taken and the Natural Resource Trustees will be notified.
- Restore areas which are disturbed by soil excavation to a level suitable for future use agreed upon by EPA and MDEQ. This restoration will be conducted to the maximum extent practicable.

Contribution to Remedial Performance:

The proposed removal action is warranted to address the threats discussed in Section III which meet the NCP Section 300.415 (b) (2) removal criteria. Although future remedial action is unlikely, the removal action contemplated in this Action Memorandum, would be consistent with any remedial action.

3. Description of Alternative Technologies:

At this time it is difficult to anticipate what disposal and/or treatment alternatives will be applicable to the waste. It is likely that any organic liquids recovered from drums will be incinerated at an off-site facility. Contaminated soil may be excavated and treated and/or disposed off-site. Alternatively, contaminated soil may be treated on-site. Due to the nature of

the contaminants, bioremediation is a consideration at this Site.

4. EE/CA:

This proposed action is time-critical and does not require an EE/CA.

5. ARARs:

RCRA Land Disposal Restrictions and the Off-Site Rule are ARARs for this cleanup. These regulations will be considered when decisions on disposal and/or treatment of contaminated materials are made. A letter has been sent to MDEQ requesting any State ARARs which MDEQ would like EPA to consider regarding this removal action.

6. Project Schedule:

Response actions at the Site will be initiated upon approval of this Action Memorandum. Foregoing any unexpected delays, all actions are expected to be completed within twelve months of mobilization.

B. ESTIMATED COSTS:

Extramural Costs:

Regional Allowance Costs:	
ERRS	\$1,340,000
USCG	\$25,000
Non-Regional Allowance Costs:	
START	\$100,000
ERT/REAC	NA
<u>Subtotal, Extramural Costs:</u>	\$1,465,000
20% Contingency:	\$293,000
TOTAL EXTRAMURAL COSTS	\$1,758,000

Intramural Costs:

Intramural Direct Costs:	
(700 hours at \$30/hr)	\$21,000
Intramural Indirect Costs:	

(700 hours at \$60/hour) \$42,000

TOTAL, INTRAMURAL COSTS \$63,000

TOTAL, REMOVAL PROJECT CEILING \$1,821,000

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN:

Due to the large volume of contaminated waste oil and wastewater contained in tanks on the abandoned Site, the threat of a significant release from one or more of the tanks increases with time. This threat, along with the potential direct contact threat with corrosive and toxic materials contained in drums, the existing fire and explosion hazard in at least one waste oil tank and several drums, and the continuous off-site migration of contaminants in surface soils toward Town Creek will increase public health and environmental risk. Delayed action will result in the continued degradation of Site conditions and may result in a major environmental hazard associated with a ruptured waste oil/wastewater tank.

VII. OUTSTANDING POLICY ISSUES:

No outstanding policy issues have been identified at this time.

VIII. ENFORCEMENT:


Enforcement activities have not been initiated at the IPC Site. See Attachment, "Enforcement Sensitive", for more detailed information.

IX. RECOMMENDATION:

This Decision Document represents the selected removal action for the IPC Site, in Jackson, Hinds County, Mississippi, developed in accordance with CERCLA as amended, and not inconsistent with the National Contingency Plan (NCP). This decision is based on the Administrative Record for the Site.

Conditions at the Site meet the NCP section 300.415(b)(2) criteria for a removal and I recommend your approval of the proposed action. The total project ceiling, if approved, will be \$1,821,000. Of this, an estimated \$1,365,000 comes from the Regional removal allowance.

(Approval)



Date:

30 MAR 99

(Disapproval)

Date:

Richard D. Green, Director
Waste Management Division

Attachment

NOTE: Due to the CONFIDENTIAL nature of the material
page 2.9 0014 - 2.9 0015 of this document have been withheld.
Withheld material is available, for Judicial review only, in the
Records Center at EPA Region IV Atlanta, Georgia.

291 0016



Y. & M.V. RAILROAD



2 9 0018

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

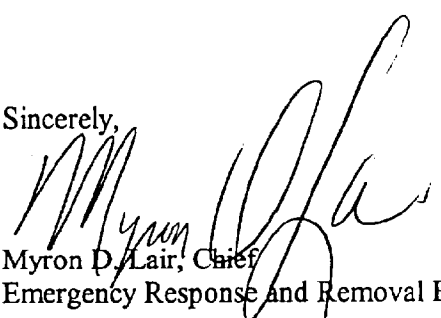
Mr. Jerry Banks, Chief
Hazardous Waste Division
MS Department of Environmental Quality
P.O. Box 10385
Jackson, Mississippi 39289-0385

Dear Mr. Banks:

We are pleased to provide a copy of the Action Memorandum for a Removal Action at the Industrial Pollution Control (IPC), Inc. Site in Jackson, Hinds County, Mississippi. If you have questions or comments concerning this document, please contact the On-Scene Coordinator at the following address:

John McKeown
U.S. Environmental Protection Agency
Waste Management Division
Emergency Response and Removal Branch
61 Forsyth Street, SW
Atlanta, Georgia 30303
404-562-8767

Sincerely,



Myron D. Lair, Chief
Emergency Response and Removal Branch

Enclosure



2 9 0019 RU717 35021

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

NOV 29 1999

ACTION MEMORANDUM

Subject: Request for a Ceiling Increase for the Industrial Pollution Control (IPC) Site, Jackson, Hinds County, Mississippi

From: John A. McKeown
On-Scene Coordinator *R. D. Rogers for*

To: Richard D. Green, Director
Waste Management Division

Site ID#: A4N1

I. PURPOSE:

A ceiling increase of \$174,600 for a new site total of \$1,995,000 is being requested to continue a removal action at the Industrial Pollution Control (IPC) Site located in Jackson, Mississippi. This increase is necessary to fund the completion of the solidification and disposal of approximately 290 cubic yards of waste oil sludge and the excavation and disposal of approximately 600 cubic yards of contaminated soil.

II. SITE CONDITIONS AND BACKGROUND:

A removal action for this site was approved in an Action Memo signed on March 30, 1999, and response activities began on April 5, 1999. To date, site activities have included the following primary response actions:

- Transportation and Disposal (T&D) of 332 drums of hazardous substances.
- Treatment and offsite discharge to the City of Jackson's Publicly Owned Treatment Works (POTW) of 200,000 gallons of wastewater.
- Offsite disposal of 5,000 gallons of wastewater.
- Excavation and offsite disposal of 550 cubic yards of contaminated soil.
- Processing 90,000 gallons of tank bottom sludge through a two phased centrifuge to reduce the hazardous waste volume.
- Disassembly of the tank farm containing over 30 tanks.

Ongoing activities at the Site include the solidification of the sludge cake which was a product of the centrifuge operation. The supernatant from the centrifuge operation produced an oil water emulsion which has been separated using a flocculant. Approximately 40,000 gallons of oil and 60,000 gallons of contaminated water was produced. The oil is currently scheduled for offsite disposal and the water is being treated for discharge to the City of Jackson's POTW. The tank farm is completely gone and a large portion of the concrete base has been removed.

The removal action at the IPC Site has exceeded the projected costs for several reasons. The main reason has been the Site's location in the middle of the City of Jackson, Mississippi and the confining nature of the Site boundaries. All waste streams have required off-site disposal and methods of waste volume reduction (for example the centrifuge) have been adopted to decrease the costs. A crane had to be used to disassemble the tanks using a deliberate approach due to the cramped space.

Another unexpected problem at the Site was the overall poor quality of the waste oil in the tanks. Most of the oil at the Site contained a moisture content of around 60% and BTU values below 10,000. This resulted in surcharges and a modification of the disposal contract. The cost of disposing the waste oil was almost doubled.

The ceiling increase will be used to finish the cleanup. The solidified sludge will need to be disposed off-site and the final excavation and Transportation and Disposal (T&D) of the contaminated soil must be completed. Confirmation soil samples will be collected to ensure the soil excavation completely addresses the imminent and substantial endangerment to human health and the environment posed by the hazardous substances in the soils. Risk-based cleanup goals will be determined through consultation with EPA's Office of Technical Services (OTS). The excavated area will be backfilled with clean fill. All risks and potential risks described in the initial Action Memorandum will have been abated. The ceiling increase will allow EPA to leave the Site in a stable condition with no waste volume on-site.

If the ceiling increase proposed in this Action Memorandum is not granted, EPA will be unable to properly dispose of both the solidified sludge and the contaminated soil. The excavation area will not be backfilled. The Site will have to be fenced and the risks of exposure to hazardous substances will exist via direct contact, inhalation and potential for migration to groundwater.

See the attached original Action Memo for details on site location, site history and NPL status. EPA's original Site cleanup goals are still in effect at the Site.

III. THREATS TO THE PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT AND STATUTORY AND REGULATORY AUTHORITIES

Due to the work completed at the IPC Site to date, several of the initial threats to public health or welfare or the environment have been abated or reduced. All drums have been disposed off-site and the tanks and their respective contents have been addressed. Therefore, the threats related to the hazardous substances contained within the drums and tanks, such as the threat of fire and explosion, no longer exist.

The current existing threat at the IPC Site is:

- *Section 300.415 (b)(2)(iv) High levels of hazardous substances or pollutants at or contaminants in soils largely at or near the surface, that may migrate.* Due to the removal of the contaminated concrete pad, the solidification/stockpiling of the waste oil sludge and the excavation/stockpiling of the contaminated soils, there is a great threat posed by soils located at or near the surface. If the soils are not disposed properly and the excavated area backfilled, residents or future workers may come into direct contact with the contaminated soils. Also, overland drainage will likely result in the spread of contamination to adjacent properties. In warm weather, a possible Volatile Organic Compound (VOC) vapor hazard may also exist.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this Action Memo, may present an imminent and substantial endangerment to public health, welfare, or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

As stated in Section II(A), the purpose of the ceiling increase is to complete the cleanup and eliminate the immediate threats to human health and the environment. Other than employing a centrifuge to separate the sludge into more affordable waste streams and the use of a crane to disassemble and reposition the tanks for cutting, the initial cleanup plan has not been amended.

Using money still available in the existing Action Memorandum, EPA is currently transporting approximately 40,000 gallons of low-BTU-value waste oil offsite and treating approximately 60,000 gallons of contaminated wastewater for future discharge into the City of Jackson's POTW. The

sludge cake produced by the centrifuge is being solidified using cement kiln dust. The concrete slab which supported the tank farm is being removed for off-site disposal.

The ceiling increase will enable EPA to excavate contaminated soils located around and under the former tank farm for off-site disposal. The excavation area will be backfilled with clean fill. The solidified sludge will be sampled and disposed off-site.

2. Contribution to remedial performance

This site has not been evaluated for inclusion on the National Priorities List (NPL). Due to the lack of a waste source and volume, it will likely receive a "no further remedial action" (NFRAP) determination. However, the actions described above are consistent with any remedial action which might be taken at the site in the future.

3. Description of alternative technologies

Other than using the centrifuge to separate the tank bottom sludge into two separate waste streams, no alternative technologies have been implemented.

4. EE/CA

No EE/CA was performed at this site because it is a time critical removal action.

5. ARAR's

RCRA Land Disposal Restrictions and the Off-Site Rule are ARARs for this cleanup. These regulations will be considered when decisions on disposal and/or treatment of contaminated materials are made. To date, all soils have met the Land Disposal Restrictions and all disposal facilities have been approved under the off-site rule.

Because EPA has been discharging treated water to the City of Jackson's POTW under an existing NPDES Permit, EPA has been working with the City of Jackson to meet the standards for Suspended Solids, Oil and Grease and BOD5.

6. Project schedule

EPA continues to work toward completing the project under the existing Action Memorandum. The tasks described within this Action Memorandum should be initiated without any type of demobilization period. The cleanup should be complete in less than 12 months from the original start date.

B. Estimated Costs

The existing Action Memorandum for the IPC Site has adequate resources located in the Extramural Contingency to keep the project running until this Ceiling Increase Action Memorandum is approved. The initial and current allocations will be displayed below with the modifications created by shifting resources from the contingency into each respective category. This will create revised allocations within the original Site ceiling. The proposed increase to the Site ceiling will result in a modified site ceiling.

	Original Ceiling and Allocations	Proposed Alterations	Original Ceiling with Revised Allocations	Proposed Ceiling Increase	Proposed Site Ceiling
<u>Extramural Costs:</u>					
Regional Allowance Costs:					
ERRS	\$1,340,000	+ \$100,000	\$1,440,000	+ \$150,000	\$1,590,000
USCG	\$25,000	+ \$5,000	\$30,000	0	\$30,000
Non-Regional Allowance Costs:					
START	\$100,000	+ \$26,000	\$126,000	0	\$126,000
ERT/REAC	0	+ \$20,000	\$20,000	0	\$20,000
<u>Subtotal, Extramural Costs:</u>					
	\$1,465,000	+ \$151,000	\$1,616,000	\$150,000	\$1,766,000
20% Contingency	\$293,000	- \$228,600	\$64,000	+ \$24,000	\$88,000
TOTAL EXTRAMURAL COSTS:					
	\$1,758,000	- \$77,600	\$1,680,400	+ \$174,000	\$1,854,400
<u>Intramural Costs:</u>					
Intramural Direct Costs:	\$21,000	+ \$25,641	\$46,641	0	\$46,641
Intramural Indirect Costs:	\$42,000	+ \$51,959	\$93,959	0	\$93,959
TOTAL INTRAMURAL COSTS:					
	\$63,000	+ \$77,600	\$140,600	0	\$140,600
<u>TOTAL REMOVAL PROJECT CEILING:</u>					<u>\$1,995,000</u>


VI. ENFORCEMENT

See the attached original Action Memo. The enforcement status at this site has not changed significantly, but the PRP search is continuing and significant information has been collected from Site files at the IPC facility.

VII. REGIONAL RECOMMENDATION

Because conditions at the Industrial Pollution Control Site meet the NCP 40 C.F.R. § 300.415 criteria for a removal action, I recommend your approval of this request for a ceiling increase of \$174,000, of which \$150,000 will be funded from the Regional removal allowance. This increase will raise the total project ceiling from \$1,821,000 to \$1,995,000. You may indicate your approval or disapproval by signing below.

(Approval)

 Date: 11/29/99

(Disapproval)

Date: _____

Richard D. Green, Director
Waste Management Division

Attachment



29 0025 35022

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

ACTION MEMORANDUM

JAN 31 2000

Subject: Request for a Ceiling Increase and Statutory Exemption Request for the Industrial Pollution Control (IPC) Site, Jackson, Hinds County, Mississippi

From: John A. McKeown
On-Scene Coordinator *R.D. Ruggie for*

To: Richard D. Green, Director
Waste Management Division

Site ID# A4N1

I. PURPOSE

A ceiling increase of \$505,000 and an exemption from the \$2 million statutory limitation is requested to complete the removal action at the Industrial Pollution Control (IPC) Site (the Site) located in Jackson, Mississippi. This increase is necessary to fund the completion of wastewater treatment, excavation and disposal of approximately 230 cubic yards of contaminated soil, disposal of 6-8 loads of debris, removal of three underground storage tanks and off-site disposal of 10,000 gallons of contaminated waste oil.

II. SITE CONDITIONS AND BACKGROUND

A removal action for the IPC Site was approved in an Action Memorandum signed on March 30, 1999, and response activities began on April 5, 1999. To date, site activities have included the following primary response actions:

- Transportation and Disposal (T&D) of 332 drums of hazardous substances.
- Treatment and off-site discharge to the City of Jackson's Publicly Owned Treatment Works (POTW) of 200,000 gallons of wastewater.
- Off-site disposal of 5,000 gallons of wastewater.
- Excavation and off-site disposal of 1,174 cubic yards of contaminated soil.
- Processing 90,000 gallons of tank bottom sludge through a two phased centrifuge to reduce the hazardous waste volume.
- Disassembly of the tank farm containing over 30 tanks and recycling scrap metal.
- Off-site Disposal of 462 cubic yards of solidified sludge.
- Off-site disposal of 275,000 gallons of contaminated waste oil
- Off-site disposal of 47 loads of site debris consisting of concrete rubble, personal protective equipment (PPE) and miscellaneous site trash.

Ongoing activities at the Site include the on-site treatment of over 100,000 gallons of contaminated wastewater. The contaminated wastewater is one of the products resulting from processing the tank bottom sludges through the centrifuge. The treated water is sampled and stored in a 20,000 gallon frac tank pending approval for off-site disposal into the City of Jackson's POTW. Once the wastewater is treated and discharged off-site, the concrete pad located under the water treatment unit and some of the frac tanks will be removed and soils will be excavated and disposed off-site. Two underground storage tanks will be investigated and addressed if necessary. Frac tank G is currently used to store any oil remaining in the other frac tanks. This oil will be disposed off-site under the current subcontract.

This Action Memorandum for a ceiling increase and an exemption from the \$2 million limitation is the third Action Memorandum for the IPC Site. The original Action Memorandum was signed on March 30, 1999. On November 29, 1999, an Action Memorandum requesting a ceiling increase to \$1,995,000 was signed in an attempt to complete the removal action without requesting a \$2 million exemption. However, as the Site nears completion, it appears that the total site costs will slightly exceed the \$2 million limitation. Therefore, this Action Memorandum is prepared to complete the removal action and justify exceeding the \$2 million limitation.

As discussed in the November 29, 1999 Action Memorandum, there are several reasons the removal action at the Site has exceeded the projected costs. The main reason has been the site's location in the middle of the City of Jackson, Mississippi and the confining nature of the site boundaries. All waste streams have required off-site disposal and methods of waste volumes reduction (for example the centrifuge) have been adopted to decrease costs. A crane was required to disassemble the tanks using a deliberate approach due to the cramped space.

Another unexpected problem at the Site was the overall poor quality of the waste oil in the tanks. Most of the oil at the Site had a moisture content of around 60% and BTU values below 10,000. This resulted in surcharges and a modification of the disposal contract. The cost of disposing the waste oil was almost doubled.

The ceiling increase and request for an exemption from the \$2 million limitation will be used to finish the removal action and provide enough contingency to ensure that adequate money is allotted to cover all aspects of the clean-up. The wastewater will be treated using the on-site treatment system and stored in frac tanks to await approval for discharge into the City of Jackson's POTW. Any remaining oil will be collected in frac tank G and disposed off-site under the current oil disposal subcontract. The concrete pad currently located under the water treatment system and some of the frac tanks will be broken, removed and disposed off-site as debris. Soil under the pad will be excavated and disposed off-site. Confirmation samples will be collected from the base of the excavated area. EPA's Office of Technical Services (OTS) and the Mississippi Department of Environmental Quality (MDEQ) are working with the OSC to determine health based

risks posed by the contaminant levels. If the contaminant levels do not pose a significant risk to human health or the environment, the excavated area will be backfilled.

If the ceiling increase and exemption from the \$2 million limitation proposed by this Action Memorandum are not granted, EPA will not be able to complete the removal action. Under the current Action Memorandum ceiling of \$1,995,000, EPA will dispose of the on-site oil and as much treated wastewater as possible. However, the remaining contaminated soil, debris and underground storage tanks will need to remain onsite due to inadequate contingency funding. Any treated wastewater remaining on-site will be stored in frac tanks which are currently funded by EPA through an ERRs subcontract. The MDEQ has limited resources to take over the project.

See the attached original Action Memorandum for details on site location, site history and NPL status. EPA's original cleanup goals are still in effect at the Site.

III. **THREATS TO THE PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT AND STATUTORY AND REGULATORY AUTHORITIES**

Due to the work completed at the Site to date, several of the initial threats to public health or welfare or the environment have been abated or reduced. All drums have been disposed off-site and the tanks and their respective contents have been addressed. Therefore, the threats related to the hazardous substances contained within the drums and tanks, such as the threat of fire and explosion, no longer exist.

The current existing threats at the Site are:

Section 300.415 (b)(2)(iii) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release. There are seven 20,000 gallon frac tanks in good condition on-site at the Site. These frac tanks contain approximately 10,000 gallons of contaminated waste oil and 100,000 gallons of contaminated wastewater. The frac tanks are not permanent storage structures and will have to be demobilized from the Site. EPA will have to find some permanent form of storage of any remaining volume not disposed under the existing Action Memorandum ceiling. The permanent on-site storage of the remaining volume of these substances could result in a future release to the surrounding residential neighborhood.

Section 300.415 (b)(2)(iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate. Due to the removal of the contaminated concrete pad, there is a threat posed by soils located at or near the surface. If the soils are not disposed properly and the excavated area backfilled, residents or future workers may come into direct contact with the contaminated soils. Also, overland drainage will likely result in the spread of contamination to adjacent properties. In warm weather, a possible Volatile Organic Compound (VOC) vapor hazard may also exist.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from the Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment.

V. EXEMPTION FROM STATUTORY LIMITS

A significant threat to public health or welfare remains at the Industrial Pollution Control (IPC) Site. Continued response actions are required to mitigate the risks posed by a threat of release as outlined in Section III of this document. These threats can be mitigated only by completion of the removal action outlined in this memorandum. Section 104(c) of CERCLA limits federal removal actions to \$2 million and 12 months unless the requirements of one of two exemptions in the statute are met. This Action Memorandum seeks exemption from the \$2 million limitation based on the emergency exemption.

A. Emergency Exemption

1. Immediate Risk to Public Health or Welfare of the Environment - Contaminated waste waters are contained in temporary storage tanks on-site. Although a plan is in place to address this estimated 100,000 gallons of volume, the current Action Memorandum site ceiling is insufficient to address this problem to its completion. Leaving this volume on-site poses a potential for an immediate or future release of contaminated waters into the adjacent residential neighborhood. Furthermore, any offsite migration would also release into one or both storm drains leading to the City of Jackson's POTW or into an adjacent stream which eventually flows into the Pearl River. In addition to the contaminated wastewater, hazardous substances detected in contaminated soils remain on-site. This poses a threat to any person traversing the site or future worker using earth moving equipment to develop a portion of the property. The underground storage tanks, which contain a small volume of hazardous substances, may also pose an immediate threat to a worker using earth moving equipment at the Site. Due to the Site's location near a major university and in the middle of an urban area, future redevelopment is likely.
2. Continued Response Actions are Immediately Required to Prevent, Limit, or Mitigate an Emergency - Hazardous substance, including carcinogens, in on-site soils pose an ingestion threat to local residents and future workers at the Site. These soils must be excavated and disposed off-site to eliminate any future release via direct contact or overland drainage. Also, the underground storage tanks contain a small volume of hazardous substances which need to be addressed to eliminate the future risk to workers operating earthmoving equipment at the Site. Due to the Site's location near a major university and in the middle of an urban area, future redevelopment is likely.

In addition to the threats posed by the contaminated soils, any wastewater remaining on-site following the demobilization will pose a future threat of release to the adjacent residential neighborhood or the City of Jackson's POTW via one of two down gradient storm drains. This threat of release provides a direct avenue for hazardous substances to adversely effect local residents. These conditions constitute an emergency.

3. Assistance will Not Otherwise be Provided on a Timely Basis - The State and local agencies do not have the financial and contractual resources necessary to conduct the removal activities required to mitigate the threats present at the IPC Site. The Site is not candidate for inclusion on the National Priorities List (NPL). The Enforcement Addendum attached to the original Action Memorandum explains in detail the current enforcement situation and why an enforcement-lead removal will not occur.

VI. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

As stated in Section II(A), the purpose of the ceiling increase and exemption from the \$2 million limitation is to complete the cleanup and eliminate the immediate threats to human health and the environment. Other than employing a centrifuge to separate the sludge into more affordable waste streams and the use of a crane to disassemble and reposition the tanks for cutting, the initial cleanup plan has not been amended.

Using money still available in the existing Action Memorandum (the Ceiling Increase dated November 29, 1999), EPA will dispose approximately 10,000 gallons of contaminated waste oil off-site and complete the initial treatment of the contaminated waste water. The treated waste water will be sampled and discharged to the City of Jackson's POTW if it meets the requirements of the existing permit for the IPC Site.

The ceiling increase will enable EPA to dispose the waste water off-site, if necessary. The ceiling increase will also allow EPA to address the remaining soil and underground storage tank issues at the Site. EPA will remove the concrete pad and dispose the concrete rubble off-site as debris. EPA will excavate the soil under the concrete pad and collect a confirmation sample of the soil in the excavation area. EPA will backfill the excavated area with clean fill if the analysis and evaluation of the data from the confirmation sampling indicates that unacceptable risk does not

exist. EPA will then remove the two small underground storage tanks and their contents. The ceiling increase will also cover all demobilization costs and allow for adequate contingency money to ensure the ERRS Delivery Order is not exceeded.

2. Contribution to remedial performance

The Site has not been evaluated for inclusion on the National Priorities List (NPL). Due to the lack of a waste source and volume, it will likely receive a "no further remedial action" (NFRAP) determination. However, the actions described above are consistent with any remedial action which might be taken at the Site in the future.

3. Description of alternative technologies

Other than using the centrifuge to separate the tank bottom sludge into two separate waste streams, no alternative technologies have been implemented.

4. EE/CA

No EE/CA was performed at this Site because it is a time-critical removal action.

5. ARARs

RCRA Land Disposal Restrictions and the Off-Site Rule are ARARs for this cleanup. These regulations will be considered when decisions on disposal and/or treatment of contaminated materials are made. To date, all soils have met the Land Disposal Restrictions and all disposal facilities have been approved under the Off-Site Rule.

Because EPA has been discharging treated water to the City of Jackson's POTW under an existing NPDES Permit, EPA has been working with the City of Jackson to meet the standards for Suspended Solids, Oil and Grease and BOD5.

6. Project schedule

EPA continues to work toward completing the project under the existing Action Memorandum. The tasks described within this Action Memorandum should be initiated without any type of demobilization period. The cleanup should be complete in less than 12 months from the original start date.

B. Estimated Costs

The existing Action Memorandum for the Site has adequate resources located in the Extramural Contingency to keep the project running until this Ceiling Increase and \$2 Million Exemption Action Memorandum is approved. The table below displays the current allocations, the proposed modifications and the modified site ceiling.

	Current Site Ceiling	Proposed Modifications	Proposed Site Ceiling
<u>Extramural Costs:</u>			
Regional Allowance Costs:			
ERRS	\$1,628,400	\$198,000	\$1,826,400
USCG	\$30,000	\$7,000	\$37,000
Non-Regional Allowance Costs:			
START	\$126,000	0	\$126,000
ERT/REAC	\$20,000	0	\$20,000
<u>Subtotal, Extramural Costs:</u>	\$1,804,400	\$205,000	\$2,009,400
20% Contingency	\$50,000	0	\$50,000
TOTAL EXTRAMURAL COSTS:	\$1,854,400	\$205,000	\$2,059,400
<u>Intramural Costs:</u>			
Intramural Direct Costs:	\$46,641	\$100,000	\$146,641
Intramural Indirect Costs:	\$93,959	\$200,000	\$293,959
TOTAL INTRAMURAL COSTS:	\$140,600	\$300,000	\$440,600
<u>TOTAL REMOVAL PROJECT CEILING:</u>			<u>\$2,500,000</u>

VII. ENFORCEMENT

See the attached original Action Memorandum. The enforcement status at the Site has not changed significantly, but the PRP search is continuing and significant information has been collected from the Site files.

VIII. REGIONAL RECOMMENDATION

Because conditions at the Industrial Pollution Control (IPC) Site meet the NCP 40 C.F.R., Section 300.415 criteria for a removal action, I recommend your approval of this request for a ceiling increase of \$505,000, of which \$205,000 will be funded from the Regional Removal Allowance. This increase will raise the total project ceiling from \$1,995,000 to \$2,500,000. Because the modified ceiling is over \$2 million, I request your approval for an exemption from the \$2 million limitation.

(Approval)



Date:

31 JAN 00

(Disapproval)

Date:

Richard D. Green, Director
Waste Management Division

2 Attachments: IPC Action Memorandum, Dated March 30, 1999.

IPC Ceiling Increase Action Memorandum, Dated November 29, 1999.

RAT Notification/ Priority Recommendation**Initial Polrep****I. HEADING**

DATE: December 16, 1998

FROM: John McKeown, OSC, U.S. EPA, Region 4
Emergency Response and Removal Branch

TO: Don Rigger, Chief
Removal Assessment Team

SUBJECT: Polrep #1, Industrial Pollution Control
Jackson, Hinds County, Mississippi

Period of Record - December 11, 1998

Weather: Cool temperatures with a constant drizzle. Temperatures around 50 degrees Fahrenheit.

Personnel on Site: EPA: John McKeown
MDEQ: 2 (Ken Whitten and Eric Deer)

II BACKGROUND

Industrial Pollution Control (IPC) is located at 810 Poindexter Street in Jackson, Hinds County, Mississippi. The Site is located North of I-20 and West of I-55 along Terry Road near Jackson State University. The Site operated as a used oil facility for many years until filing for Chapter 11 bankruptcy in 1997.

The Site has a long list of permit violations resulting in several Actions initiated by the the Mississippi Commission on Environmental Quality (MCEQ) against IPC. These include the following:

- October 1992 - IPC was notified by MCEQ that they were in violation of construction permit by constructing different processes than those approved in the permit (Ref. 1).

- December 1993 - Order 273694 between MCEQ (complainant) and IPC (respondent) addressed a June/July 1993 inspection of the IPC facility which uncovered numerous violation of Mississippi Pretreatment Permit #MSP090616. These violations included passing wastewater to the POTW, inadequate secondary containment and discharges to the waters of the State and failure to analyze and report for several inorganic and organic materials as required by their

permit. IPC was fined \$195,000 for the series of violations (Ref 2).

- May-June 1997 - Order 344197 - Violations recorded during a May 5, 6 and 7, 1997 inspection included oil-storage tanks which were leaking or in poor condition, secondary containment not sufficiently impervious to contain a used oil release and several other violations. IPC was ordered to recover all oil and solid wastes, stop accepting used waste oil, inventory all drums, tanks, vats, etc. onsite, excavate contaminated soil onsite and offsite and several other actions related to the leakage or poor containment of the oil stored onsite. No fines were levied as part of this order (Ref 3).

- November 1997 - (Blank Order, not signed. Need to verify whether this is a preliminary copy or if this order was never actually signed). The November 1997 Order fined the respondent \$202,500 (Ref. 4). The respondent was also required to comply with all actions of Order 344197 and hire a consultant to provide a written estimate and conduct the required work at the site to comply with Order #344197. All #6 Oil was required to be removed by March 31, 1998 (Ref. 5).

The Site was referred to EPA via a November 4, 1998 letter from Ms. Betty Ruth Fox, Senior Attorney with MDEQ, to Mike Norman of EPA's Emergency Response and Removal Branch (ERRB).

III ACTIVITIES DURING REPORTING PERIOD

The following actions were taken during the period of record:

December 11, 1998 - OSC John McKeown along with Ken Whitten and Eric Deer of MDEQ conducted a brief Site Visit to determine if there was a release or the realistic possibility of a release of the #6 oils onsite into a nearby surface water. The inventory provided with the Site information indicates that most or all of the tanks onsite contain some #6 oil and the estimated total oil volume onsite is 238,000 gallons. All sketches, maps and photographs will be included as Reference package 6.

The Assessment Team observed that the Site was obviously abandoned and the structures were in poor condition (this includes the drum warehouse, tanks and office buildings). The Site was fenced on three sides and all vehicle access was prevented by a locked gate. The entire west side of the Site (along the railroad tracks, office building and storage tanks) was unfenced and could easily be entered on foot. The Site clearly drains from the Northwest to the Southeast. This is also marked by oil stain lines located along the drainage pathway. The overland drainage pathway carries offsite at the Southeast corner of the facility, flows approximately 100 feet onto Terry Road and flows West several feet into a Stormdrain which empties into an intermittent stream directly under the drain. This will flow south into Town Creek and eventually into the Pearl River. During the Site visit this was very evident by simply tracking the oily sheen from the Site.

Onsite, the drums and secondary containment appeared to be in terrible condition. The Secondary containment was made of cinder blocks with cracks along the edges. The secondary containment did not appear to be sufficiently impervious to hold even half the volume of any of the tanks

within the containment. Soil and subsurface soil contamination may be limited due to the asphalt site surface. This may have increased the flow of contamination into the soils located offsite.

Another area of concern was the drum warehouse. In addition to drums containing oil wastes, additional drums containing caustic materials and solvents were noted. Some of the drums were in very poor condition. Approximately 50 drums were located in the warehouse and scattered throughout the Site.

During the inspection, Eric Deer of MDEQ recalled responding to a call regarding the oil/water separator. This happened approximately three years ago. Eric recalled that a during that incident a release to the surface water was very evident.

IV ANALYTICAL RESULTS

No samples were collected during the Site visit.

V CONCLUSIONS

The intent of the Removal Assessment was to determine whether or not there has been a release or there is a potential for a release of oil from the Site into navigable waters of the United States. This was clearly evident based on the Site conditions, overland drainage pathway and short distance to an entry point into an intermittent stream located almost adjacent to the Site. In addition to the potential oil release problem, several drums containing hazardous materials were observed in the warehouse. These drums were in poor condition and were easily accessible via the western side of the Site.

VI RECOMMENDATION

Due to the volume of oil stored onsite, the condition of the storage containers and the secondary containment along with the overland drainage pathway at the Site, the potential of a release of oil to the navigable waters of the US is not only likely but is imminent. Also, the drums containing hazardous materials onsite may pose a significant threat to human health and the environment. Based on these conditions, a response action is recommended on a high priority basis.

VII COST TO DATE

EPA/START	\$xxxxxx
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BEFORE THE MISSISSIPPI COMMISSION
ON ENVIRONMENTAL QUALITYMISSISSIPPI COMMISSION ON
ENVIRONMENTAL QUALITY

COMPLAINANT

v.

ORDER NO. 2521 93Industrial Pollution Control
810 Poindexter Street
Jackson, Mississippi 39204

RESPONDENT

ORDER

The above captioned cause came before the Executive Director of the Mississippi Department of Environmental Quality this day for ex parte consideration under the authority of Section 49-2-13 of the Mississippi Code Annotated (Supp. 1991), and the Executive Director, having heard and considered the evidence therein, and having determined that an Administrative Order should issue prefatory to any evidentiary hearing and without making any final adjudication of fact or law, finds as follows:

1.

The Respondent is subject to Section 49-17-1 et. seq of the Mississippi Code Annotated (Supp. 1991) and the rules and regulations of the Mississippi Commission on Environmental Quality (Commission).

2.

Industrial Pollution Control, Respondent, owns and operates an oil and water reclamation facility at 810 Poindexter Street in Jackson, Mississippi (Hinds County).

Ref 1

3.

On October 27, 1992, Respondent was notified by Complainant that Respondent was in violation of its Construction Permit by having constructed additional or different processes from those that had been approved. On November 5, 1992, Respondent was notified by Complainant that application was needed if Respondent wished to be permitted to treat the landfill leachate. On December 18, 1992, Respondent was notified again by Complainant of what information was needed to enable permitting the landfill leachate treatment. On January 22, 1993, Respondent was notified by Complainant a third time about needed information for permitting.

Premises considered, the Executive Director finds Industrial Pollution Control has been operating its facility at 810 Poindexter Street in Jackson, Mississippi, in violation of its construction and operating permits in that Respondent has been treating the landfill leachate which is a process not included in either permit.

IT IS, THEREFORE, ORDERED as follows:

Respondent shall immediately cease treating, storing, and/or handling landfill leachate at this facility.

If aggrieved by this Order, Respondent may request a hearing before the Commission by filing a sworn petition with the Commission in the manner provided by Section 49-17-41 of the Mississippi Code Annotated (Supp. 1991).

2 10 0006

ORDERED, this the 19th day of May, 1993.

MISSISSIPPI COMMISSION ON
ENVIRONMENTAL QUALITY

BY: J. E. Palmer, Jr.
J. E. PALMER, JR.
EXECUTIVE DIRECTOR
MISSISSIPPI DEPARTMENT OF
ENVIRONMENTAL QUALITY

BEFORE THE MISSISSIPPI COMMISSION
ON ENVIRONMENTAL QUALITY

MISSISSIPPI COMMISSION ON
ENVIRONMENTAL QUALITY

COMPLAINANT

VS.

ORDER NO.

2735-94

INDUSTRIAL POLLUTION CONTROL, INC.

RESPONDENT

AGREED ORDER

COME NOW THE Mississippi Commission on Environmental Quality (Commission), Complainant, and Industrial Pollution Control, Inc., Respondent, in the above captioned cause and agree as follows:

1.

On August 16 and November 22, 1993, Respondent was contacted by the Mississippi Department of Environmental Quality ("DEQ") on behalf of the Complainant and notified of the following violations:

WATER DIVISION

- A. An inspection performed on June 29, 1993, revealed that Respondent violated maximum concentrations of its State of Mississippi Pretreatment Permit No. MSP090616 for Ammonia-N, Oil and Grease, BOD₅ and TSS.
- B. An inspection performed on June 29, 1993, revealed that Respondent violated minimum limits of its State of Mississippi Pretreatment Permit No. MSP090616 for pH.
- C. An inspection performed on July 7, 1993, revealed bypassing of wastewater to the POTW in violation of Respondent's State of Mississippi Pretreatment Permit No. MSP090616.
- D. Inspections performed on July 14, 1993, and July 16, 1993, revealed inadequate secondary containment and subsequent discharges of wastewater to waters of the State in violation of Part II.A.1. of Respondent's State of Mississippi Pretreatment Permit No. MSP090616.

Ref 2

- E. In April, 1992, May, 1992, November, 1992, April, 1993, June, 1993, and July, 1993, Respondent violated the permitted average and maximum concentrations of its State of Mississippi Pretreatment Permit No. MSP090616 for BOD₅.
- F. In April and June, 1993, Respondent violated the permitted average and maximum concentrations of its State of Mississippi Pretreatment Permit No. MSP090616 for TSS.
- G. In April, 1992, April, 1993, and June, 1993, Respondent violated the permitted average and maximum concentrations of its State of Mississippi Pretreatment Permit No. MSP090616 for Oil and Grease.
- H. In November, 1992, Respondent violated the permitted average concentration of its State of Mississippi Pretreatment Permit No. MSP090616 for Oil and Grease.
- I. In April and June, 1993, Respondent violated the permitted maximum concentration of its State of Mississippi Pretreatment Permit No. MSP090616 for Ammonia-N.
- J. In April and November, 1992, Respondent violated the permitted average concentration of its State of Mississippi Pretreatment Permit No. MSP090616 for Ammonia-N.
- K. In April, 1993, Respondent violated the permitted average concentration of its State of Mississippi Pretreatment Permit No. MSP090616 for Ammonia-N.
- L. In April, 1992, May, 1992, November, 1992, June, 1993, and July, 1993, Respondent violated the permitted average and maximum loading value of its State of Mississippi Pretreatment Permit No. MSP090616 for BOD₅.
- M. In April, 1993, Respondent violated the permitted average loading of its State of Mississippi Pretreatment Permit No. MSP090616 for BOD₅.
- N. In April, 1992, April, 1993, and June, 1993, Respondent violated the permitted average and maximum loading of its State of Mississippi Pretreatment Permit No. MSP090616 for Oil and Grease.
- O. In April, 1992, Respondent violated the permitted average loading of its State of Mississippi Pretreatment Permit No. MSP090616 for Ammonia-Nitrogen.
- P. In November, 1992, and April, 1993, Respondent violated the permitted average and maximum loading of its State of

Mississippi Pretreatment Permit No. MSP090616 for Ammonia-Nitrogen.

- Q. In June, 1993, Respondent violated the permitted maximum loading of its State of Mississippi Pretreatment Permit No. MSP090616 for Ammonia-Nitrogen.
- R. In April, 1993 and June, 1993, Respondent violated the permitted average and maximum loading of its State of Mississippi Pretreatment Permit No. MSP090616 for TSS.
- S. In September, 1993, Respondent failed to analyze and report for BOD₅, TSS, Oil and Grease, Total Arsenic, Total Cadmium, Total Chromium, Total Lead, Total Zinc, Total Phenol and Pentachlorophenol as required by its State of Mississippi Pretreatment Permit No. MSP090616.
- T. Respondent has conducted its activities at the facility without coverage under a required NPDES Industrial - Storm Water Permit.

AIR DIVISION

- U. On June 2, June 14 and July 7, 1993, Respondent accepted landfill leachate at its facility from the BFI Little Dixie Landfill which is in direct violation of Commission Order No. 2521-93 dated May 19, 1993.

2.

In lieu of a formal enforcement hearing concerning the violations listed above, Complainant and Respondent agree to settle this matter as follows:

Respondent agrees to pay and Complainant agrees to accept the sum of \$195,000.00 as a full and complete settlement thereof, said sum to be payable as follows:

- A. The sum of \$70,000.00 shall be paid by Respondent to the DEQ by check or money order in accordance with the following payment plan:

<u>Installment No.</u>	<u>Amount</u>	<u>Due Date</u>
1	\$5,833.34	1/31/94
2	5,833.34	2/28/94
3	5,833.34	3/31/94
4	5,833.34	4/29/94
5	5,833.33	5/31/94
6	5,833.33	6/30/94
7	5,833.33	7/29/94
8	5,833.33	8/31/94
9	5,833.33	9/30/94
10	5,833.33	10/28/94
11	5,833.33	11/30/94
12	<u>5,833.33</u>	12/30/94
	\$70,000.00	

- B. An additional sum of \$125,000.00 shall be paid by Respondent to DEQ if any requirement outlined in the below paragraphs 2.B.1. through 2.B.8. is not satisfied.

1. On or before March 25, 1994, Respondent shall prepare and submit an engineering design of a wastewater treatment facility along with a DEQ approved schedule for completion of the aforementioned treatment facility. The design must be prepared by a Professional Engineer with expertise in wastewater treatment. The schedule of completion of the wastewater treatment facility that is approved by DEQ is hereby incorporated herein. Respondent hereby agrees to comply with the schedule. Respondent understands and acknowledges that failure to comply with the schedule will be considered to be in violation of this Agreed Order.
2. Compliance with the modified pretreatment and air permits shall be demonstrated by Respondent beginning 30 days after completion of construction of the treatment facility and lasting for a period of 90 days.
3. Respondent shall submit to the DEQ the necessary ownership information and complete applications for permit transfers for its air and pretreatment permits by January 14, 1994.

4. Respondent shall submit a complete application for a permit modification for its pretreatment permit to the DEQ which defines all types of waste which could be handled at the facility by January 14, 1994.
5. Respondent shall submit a complete application for a permit modification for its air permit to the DEQ which defines all types of waste which could be handled at the facility by February 7, 1994. The air application shall provide the maximum emissions rate and chemical species of pollutant for each type of waste.
6. Respondent shall not accept, handle or otherwise store on site any organic-containing wastes which have or contain constituents which have a true vapor pressure as stored greater than 0.5 psia.
7. Respondent shall not accept, handle or otherwise store on site any landfill groundwater extracts or other wastes which will produce odorous gaseous by-products as a result of biological or chemical degradation.
8. Respondent shall submit a complete application for a NPDES Industrial - Storm Water permit to the DEQ by February 25, 1994.

3.

Nothing in this agreement or in this Order shall limit the rights of the Mississippi Department of Environmental Quality or the Mississippi Commission on Environmental Quality in the event Industrial Pollution Control, Inc. fails to comply with this Order. This agreement shall be strictly construed to apply to those matters expressly resolved herein. In the event Industrial Pollution Control, Inc. fails to comply with any of the terms of this Agreed Order, the Mississippi Department of Environmental

Quality, acting on behalf of the Commission, may enforce this Agreed Order through the Hinds County Chancery Court.

4.

No time limit specified in this Agreed Order shall be extended by the Mississippi Department of Environmental Quality unless such extension is in the form of a written amendment to this Agreed Order executed by the Executive Director of the Mississippi Department of Environmental Quality as well as the respondent. Any circumstances, conditions or events which may render respondent unable to comply with any of the terms of this Agreed Order must be immediately communicated in writing to DEQ as soon as such circumstances are known to respondent. The communication of respondent's inability to comply does not relieve respondent of its legal responsibility under this Agreed Order unless an amendment to this Agreed Order is executed by the Executive Director of DEQ and respondent.

5.

Nothing contained in this Agreed Order shall limit the rights of Complainant to take enforcement or other actions against Respondent for future violations of environmental laws, rules and regulations.

6.

Respondent understands and acknowledges that it is entitled to an evidentiary hearing before the Commission pursuant to Section 49-17-31 of the Mississippi Code Annotated (Supp. 1993), and that it has made an informed waiver of that right.

ORDERED, this the 7th day of ~~December~~ ^{January, 1994}, 1993.

MISSISSIPPI COMMISSION ON
ENVIRONMENTAL QUALITY

BY:

J. I. PALMER, JR.
EXECUTIVE DIRECTOR
MISSISSIPPI DEPARTMENT
OF ENVIRONMENTAL QUALITY

AGREED, this the 29 day of December, 1993.

INDUSTRIAL POLLUTION CONTROL, INC.

BY:

TITLE:

Thomas D. Croftson Pres.
Sec. - Treas

Rel 3

2 10 0014

**MISSISSIPPI COMMISSION
ON ENVIRONMENTAL QUALITY**

**MISSISSIPPI COMMISSION ON
ENVIRONMENTAL QUALITY**

COMPLAINANT

V.

AMENDMENT TO ORDER NO. 3441 97

**INDUSTRIAL POLLUTION CONTROL, INC.
810 POINDEXTER ROAD
JACKSON, MS 39207**

RESPONDENT

ORDER AMENDMENT

Mississippi Commission on Environmental Quality Order No. 3441 97 previously issued on May 9, 1997 in the above captioned matter, came on this day for reconsideration, and the Executive Director of the Mississippi Department of Environmental Quality having received additional evidence in this cause and being fully advised in the premises, finds that the requirements outlined in the Order should be amended as follows:

1.

Unless otherwise approved in writing by the Department of Environmental Quality, Respondent shall immediately cease and desist accepting, receiving and/or processing any waste and/or product materials at Respondent's facility located at 810 Poindexter Road.

2.

Respondent shall immediately cease and desist using secondary containment areas and bins for processing and/or storing waste materials and/or product materials.

3.

Respondent shall immediately comply with all regulations and specifications set forth in Mississippi Hazardous Waste Management Regulations 40 CFR Part 279.

4.

On or before June 17, 1997, Respondent shall recover and containerize on site all materials (products and wastes including any liquid, solid and semi-solid materials) which are in secondary containment areas, bins, open containers, or otherwise exposed to the environment.

5.

On or before June 17, 1997, Respondent shall label all drums, boxes and other containers to identify the waste generator and type of waste.

6.

On or before June 17, 1997, Respondent shall excavate and properly containerize all visually contaminated soil on and immediately adjacent to the Poindexter Road facility.

7.

On or before June 11, 1997, Respondent shall identify and permanently plug, at the manhole, all discharge lines at the facility except for the domestic sewage discharge line. All wastewater other than domestic sewage shall be transported to the City of Jackson wastewater treatment facility located at Savannah Road.

8.

On or before June 17, 1997, Respondent shall submit a plan in writing to DEQ for approval which specifies a schedule for removal of the No. six (6) oil waste/product from the facility to authorized offsite facilities.

9.

On or before July 3, 1997, Respondent shall submit in writing to the Mississippi Department of Environmental Quality a list of the contents and volumes of all materials (including products and wastes) on the site. The list shall contain the generator (including name, address and telephone number) of such material and any manifests, invoices and other documents evidencing shipment of the materials.

10.

On or before July 3, 1997, Respondent shall submit a plan in writing to the Department of Environmental Quality for approval which describes procedures to achieve adequate secondary containment of all holding structures and a schedule for implementing the plan. Secondary containment must meet the applicable requirements of 40 CFR 279.54.

This Order does not address fines, penalties, other sanctions, further removal and/or remedial actions and/or violations of environmental laws or rules and regulations not addressed herein and future violations of environmental laws, rules and regulations. Nothing contained in this Order shall limit the rights of Complainant to take enforcement or other actions against Respondent for violations addressed herein, violations not addressed herein, fines, penalties, other sanctions, further removal actions and/or remedial actions and/or future violations of environmental laws, rules and regulations.

Respondent shall comply with this Order, until further order from the Commission.

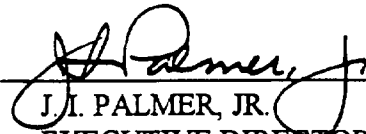
If aggrieved by this Order, Respondent may request a hearing before the Commission by filing a sworn petition with the Commission within thirty (30) days after the date of this Order in the manner set forth in Section 49-17-41 of the Mississippi Code Annotated (Rev. 1996).

2 10 0017

ORDERED, this the 5th day of June, 1997.

MISSISSIPPI COMMISSION ON
ENVIRONMENTAL QUALITY

BY:


J. I. PALMER, JR.

EXECUTIVE DIRECTOR
MISSISSIPPI DEPARTMENT
OF ENVIRONMENTAL QUALITY

BEFORE THE MISSISSIPPI COMMISSION ON ENVIRONMENTAL QUALITY**MISSISSIPPI COMMISSION ON
ENVIRONMENTAL QUALITY****COMPLAINANT****VS.****ORDER NO. 3441 97****INDUSTRIAL POLLUTION CONTROL, INC.
810 POINDEXTER ROAD
JACKSON, MISSISSIPPI 39207****RESPONDENT****ORDER**

The above captioned matter came before the Executive Director of the Mississippi Department of Environmental Quality this day for ex parte consideration under the authority of Mississippi Code Annotated Section 49-2-13 (Rev. 1990), and the Executive Director, having heard and considered the evidence therein, and having determined that an Administrative Order should issue prefatory to any evidentiary hearing and without making any final adjudication of fact or law, finds as follows:

1. The Respondent is subject to Mississippi Code Annotated Sections 17-17-1, et seq. and 49-17-1, et seq., as well as the rules and regulations of the Mississippi Commission on Environmental Quality ("Commission").

2. Investigations conducted by the Mississippi Department of Environmental Quality ("DEQ") at Respondent's Jackson facility on May 5, 6 and 8, 1997, revealed that Industrial Pollution Control (IPC) is in violation of at least the following Mississippi Hazardous Waste Management Regulations (MHWMR):

A. MHWMR 279.54(b)(1): tanks and/or containers used to store or process used oil must be in good condition.

- B. MHWMR 279.54(b)(2): Tanks and or containers used to store or process used oil must not be leaking.
- C. MHWMR 279.55(d)(2): The entire containment system, including walls and floor, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

PREMISES CONSIDERED, the Executive Director finds that Respondent has operated and/or is operating the facility in violation of Miss. Code Annotated Section 49-17-29 and 17-17-27 and the Mississippi Hazardous Waste Management Regulations.

IT IS THEREFORE, ORDERED, under the authority of Mississippi Code Annotated Section 49-2-13, that Respondent shall comply with the following:

1. Recover and containerize all oil and other liquid, solid, and semi-solid waste materials in warehouses on-site.
2. Inventory by origin, content and volume all drums, tanks, vats, bins and other containers. Describe the amount and classification of waste as either hazardous or non-hazardous and provide supporting documentation for waste classification.
3. Remove and securely containerize all water, oil and other liquid, solid, and semi-solid waste materials and products from secondary containment areas and bins.
4. Unless otherwise allowed in writing by DEQ, cease and desist from bringing additional waste materials to the Poindexter Road facility until the total volume of on-site waste is less than the total storage capacity. This total storage capacity must include the capacity to store and/or treat stormwater from a 1 inch rainfall in addition to the storage of on-site waste.
5. Label all drums and other non-bulk containers so as to identify the waste generator and type of waste.

6. Excavate and contain all visually contaminated soil on, and immediately adjacent to, the Poindexter Road facility.
7. Identify and permanently plug, at the manhole, all IPC discharge pipes not used by IPC for the discharge of wastewater, industrial and domestic, to the city sanitary sewer system.
8. Comply with all regulations and specifications set forth in Mississippi Hazardous Waste Management Regulations 40 CFR Part 279.
9. Cease and desist from using secondary containment areas and bins for processing and/or storing waste materials.

This Order does not address fines, penalties, other sanctions, further removal and/or remedial actions and/or violations of environmental laws or rules and regulations not addressed herein and future violations of environmental laws, rules and regulations. Nothing contained in this Order shall limit the rights of Complainant to take enforcement or other actions against Respondent for violations addressed herein, violations not addressed herein, fines, penalties, other sanctions, further removal actions and/or remedial actions and/or future violations of environmental laws, rules and regulations.

Respondent shall comply with this Order, until further order from the Commission.

If Aggrieved by this Order, Respondent may request a hearing in the manner provided by Mississippi Code Annotated Section 49-17-41.

ORDERED, this the 27th day of May, 1997.

MISSISSIPPI COMMISSION ON
ENVIRONMENTAL QUALITY

BY: 

J. I. PALMER, JR.

EXECUTIVE DIRECTOR
MISSISSIPPI DEPARTMENT OF
ENVIRONMENTAL QUALITY

Rel 4



STATE OF MISSISSIPPI
DEPARTMENT OF ENVIRONMENTAL QUALITY
JAMES I. PALMER, JR.
EXECUTIVE DIRECTOR

November 5, 1997

Richard Montague, Esq.
Wells, Moore, Simmons & Hubbard
P. O. Box 1970
Jackson, MS 39215-1970

**Re: Mississippi Commission on Environmental Quality v.
Industrial Pollution Control, Inc.**

Dear Mr. Montague:

Pursuant to our recent telephone conversation, please find enclosed the proposed Agreed Order related to the referenced matter.

If you are in agreement with the Agreed Order, please have the Bankruptcy Court approve and authorize the execution of the Order and have your client sign and date the Order in the appropriate spaces. Upon our Executive Director's execution of the Order, we will provide you with a fully executed copy.

On the other hand, if you have comments or questions related to the Agreed Order, please contact me at (601) 961-5260.

Thank you for your assistance in this matter.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Roy Furrh".

Roy Furrh
Senior Attorney

RF:gd
Enclosure

BEFORE THE MISSISSIPPI COMMISSION ON ENVIRONMENTAL QUALITY**MISSISSIPPI COMMISSION ON
ENVIRONMENTAL QUALITY****COMPLAINANT****V.****ORDER NO. _____****INDUSTRIAL POLLUTION CONTROL, INC.
810 POINDEXTER ROAD
JACKSON, MS 39207****RESPONDENT****AGREED ORDER**

COME NOW the Mississippi Commission on Environmental Quality ("Commission"), Complainant, and Industrial Pollution Control, Inc., Respondent, in the above-captioned cause and agree as follows:

1. By Commission Order No. 3441 97 dated May 9, 1997, Amendment to Order No. 3441 97 dated June 5, 1997 and through this Agreed Order, Respondent has been contacted by the Mississippi Department of Environmental Quality ("DEQ") on behalf of Complainant and notified of the following:

Investigations by the DEQ on May 5, 6, 8, 28 and 29, 1997, conducted on property owned by Industrial Pollution Control, Inc. located at 810 Poindexter Road in Jackson, Hinds County, Mississippi revealed that Respondent violated Part II.A.3. of Pretreatment Permit No. MSP090616 for failure to comply with standard or non-limitation conditions at its facility through the improper storage of oil. On May 5 and 28, 1997, Respondent violated Part I.A.1. of Pretreatment Permit No. MSP090616 by failing to comply with the oil and grease limitation. Finally, on May 5 and 28, 1997, Respondent violated Part II.A.1. of Pretreatment Permit No. MSP090616 by discharging wastewater to surface water.

2. In lieu of holding a formal enforcement hearing concerning the violations listed above, Complainant and Respondent agree to settle this matter as follows:

- a. Respondent agrees to pay and Complainant agrees to accept, the sum of \$202,500.00 as a full and complete penalty settlement thereof, said penalty to be paid as follows:
 - (1) The sum of \$67,500.00 shall be paid by the Respondent to the DEQ by check or money order by December 5, 1997.
 - (2) The remaining sum of \$135,000.00 shall be held in abeyance for a period of one (1) year from the execution date of this Order and shall be due and payable to DEQ upon written notice to Respondent if Respondent violates Pretreatment Permit No. MSP090616 or any requirements in this Order.
- b. In addition to the penalty payment outlined in a., Respondent agrees to reimburse DEQ in the amount of \$23,940.91 for the expenses paid out of its Pollution Emergency Fund to Ferguson Harbour Incorporated for the clean-up and investigation related to the spills occurring on May 5 and 28, 1997.
- c. Respondent agrees to fully comply with the terms and conditions of the Amendment to Administrative Order No. 3441 97 issued against Respondent on June 5, 1997, in accordance with the timeframes set forth in the Order.
- d. Respondent agrees to retain an environmental consultant to perform a site remedial investigation (approved by DEQ) in order to determine the extent of contamination of soil and groundwater at the site. The plan for performing the site investigation shall be submitted to DEQ by March 2, 1998. The plan shall set forth a schedule for implementing the plan which is acceptable to DEQ.
- e. Respondent agrees to perform remediation for any contamination that violates state or federal standards, regulations and/or laws or state cleanup standards. The plan for site remediation must be prepared, signed and sealed by a Mississippi registered professional engineer.
- f. This Order shall be modified to incorporate the schedule for implementing the plans and any required remediation removal and/or monitoring and/or other required actions.
- g. Respondent agrees to remove all of the No. 6 oil stored at its facility by March 31, 1998.

3. Respondent neither admits nor denies the alleged violations specified in this Order.

4. Nothing in this Agreed Order shall limit the rights of the Mississippi Department of Environmental Quality or the Mississippi Commission on Environmental Quality in the event Respondent fails to comply with this Order. This Order shall be strictly construed to apply to those matters expressly resolved herein. In the event Respondent fails to comply with any of the terms of this Agreed Order, the Mississippi Department of Environmental Quality, acting on behalf of the Commission, may enforce this Agreed Order through the appropriate Chancery Court.

5. No time limit specified in this Agreed Order shall be extended by the Mississippi Department of Environmental Quality unless such extension is in the form of a written amendment to this Agreed Order executed by the Executive Director of the Mississippi Department of Environmental Quality as well as the Respondent. Any circumstances, conditions or events which may render Respondent unable to comply with any of the terms of this Agreed Order must be immediately communicated in writing to DEQ as soon as such circumstances are known to Respondent. The communication of Respondent's inability to comply does not relieve Respondent of its legal responsibility under this Agreed Order unless an amendment to this Agreed Order is executed by the Executive Director of DEQ and Respondent.

6. Nothing contained in this Agreed Order shall limit the rights of Complainant to take enforcement or other actions against Respondent for future violations of environmental laws, rules and regulations.

7. Respondent understands and acknowledges that it is entitled to an evidentiary hearing before the Commission pursuant to Miss. Code Ann. § 49-17-31 (1972, as amended), and that it has made an informed waiver of that right.

ORDERED, this the _____ day of _____, 1997.

MISSISSIPPI COMMISSION ON
ENVIRONMENTAL QUALITY

BY: _____

J. I. PALMER, JR.
EXECUTIVE DIRECTOR
MISSISSIPPI DEPARTMENT
OF ENVIRONMENTAL QUALITY

ACCEPTED AND AGREED TO, on this _____ day of _____,
1997.

INDUSTRIAL POLLUTION CONTROL, INC.
RESPONDENT

BY: _____

TITLE: _____

Ref 5

2 10 0026

A & S ENVIRONMENTAL

3743 KIMBELL ROAD TERRY, MS 39170

ph. (601) 372-7471

or TF (800) 982-8547

Billy R. Sullivan, President

fax (601) 371-2462

July 27, 1998

Richard Montague
Wells, Moore, Simmons & Hubbard, PLLC
1300 Deposit Guaranty Plaza
P. O. Box 1970
Jackson, MS 39215

RE: Industrial Pollution Control Inc. Site Remediation

Gentlemen:

We are pleased to submit the enclosed BID in response to your request in your letter dated June 30, 1998. After examination of the site, I feel that our firm can respond to your request and accomplish the required work in a timely manner. The BID is a lump sum Bid for \$299,800.

Not much of the product currently stored at the site is marketable, consequently, most of it will have to be properly disposed of per MDEQ regulations.

I am enclosing an itemized ESTIMATE that addresses the various items of work to be accomplished. The concrete support saddles and containment walls are to be removed down to the concrete slab. If sampling reveals soil contamination, this will be remediated as required at additional costs at rates in effect for MDEQ trust fund work.

We will commit resources from GERARDS, Inc. (Parent corporation), and A & S Environmental, sufficient to accomplish all work as required.

Payment for the work is contingent on approval by MDEQ, sale of the property to the state, and approval of the U. S Bankruptcy Court over claims of creditors on the sale funds. I assume this work will be court ordered and some provision be made to guarantee payment should the sale not occur.

I hope the enclosed bid meets with your approval and will be glad to meet and clarify any points as necessary.

Sincerely,


Billy R. Sullivan P. E.

Incl: BID ESTIMATE

2 10 0027

A & S ENVIRONMENTAL

3743 Kimbell Road
Terry, MS 39170

Estimate

DATE	ESTIMATE NO.
7/7/98	10280

NAME / ADDRESS
Richard Montague 1300 Deposit Guaranty Plaza P. O. Box 1970 Jackson, MS 39215

PROJECT

DESCRIPTION	QTY	RATE	TOTAL
IPC Facility Remediation			
Remove and dispose of # 6 oil / gallon	161,000	0.80	128,800.00T
Rem & Disposal of oily Water/ gallon	21,100	0.80	16,880.00T
Rem and Disposal of antifreeze coolant/gallon	41,300	0.80	33,040.00T
Remove and Disposal of UST water/ gallon (ready for discharge at Treatment facility)	14,245	0.80	11,396.00T
Removal and disposal of waste grease /drum	60	50.00	3,000.00T
Removal and Disposal of waste oils & fluids			193,116.00
TOTAL GALLONS = 237,658			
Remove and dispose AST 15000 gallon /Crane required to remove from cradle 12 feet high	12	1,500.00	18,000.00T
Remove and dispose AST 22-26,000 gallon /Crane required	4	1,250.00	5,000.00T
Remove and dispose AST 11-15,000 gallon /Crane required	8	750.00	6,000.00T
Remove and dispose AST 1-6500 gallon /Crane required	4	500.00	2,000.00T
Remove and dispose AST 21 & 24,000 gallon /Crane required	2	1,250.00	2,500.00T
Remove and dispose of On & Offloading platform and plumbing & concrete & cinder block containment walls	1	8,000.00	8,000.00T
MOBILIZATION AND DEMOBILIZATION		19,000.00	19,000.00T
UST Removal and disposal -2-4000 gal capacity	3	1,800.00	5,400.00T
Sq. Ft. - Removal and disposal concrete structural supports/tank	12	2,000.00	24,000.00T
THANKS FOR THE OPPORTUNITY TO QUOTE THIS JOB.			
TOTAL			

2 10 0028

A & S ENVIRONMENTAL

3743 Kimbell Road
Terry, MS 39170

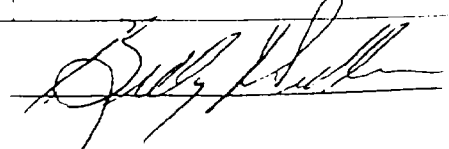
Estimate

DATE	ESTIMATE NO.
7/7/98	10280

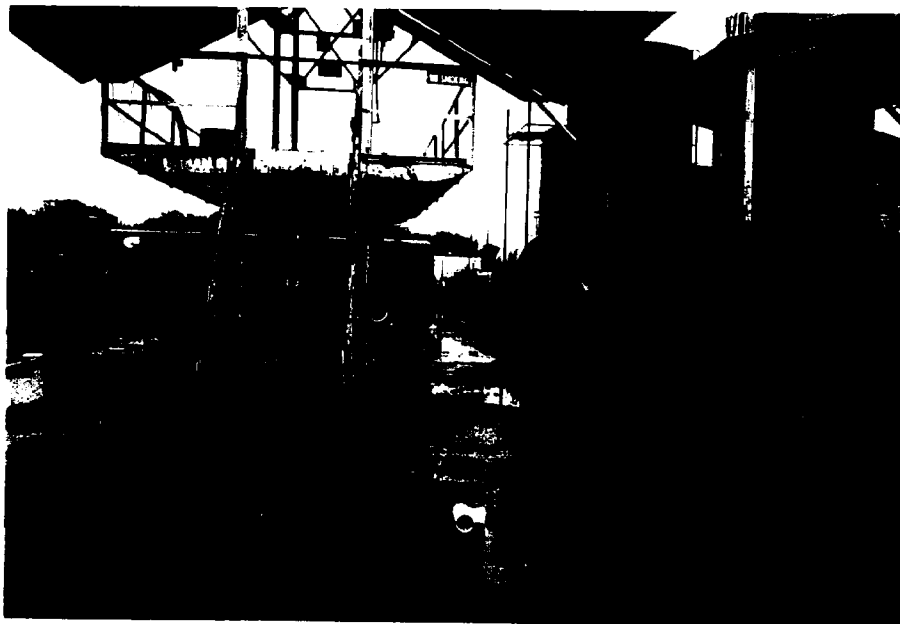
NAME / ADDRESS
Richard Montague 1300 Deposit Guaranty Plaza P. O. Box 1970 Jackson, MS 39215

PROJECT

DESCRIPTION	QTY	RATE	TOTAL
Gal. - Removal and disposal of oil/water residue	2,000	1.80	3,600.00T
Lump Sum - Obtain MDEQ permits and other local ok		200.00	200.00T
Cu. Yd. - Backfill furnished, placed, and compacted	40	38.00	1,520.00T
TPH - Total Petroleum Hydrocarbons -SW-846 methods 5030,8020, & 418.1, 150.1	9	115.00	1,035.00T
UST Removal & Disposal Group			54,755.00
Sales Tax (MPC over 10K)		3.62694%	10,495.31
THANKS FOR THE OPPORTUNITY TO QUOTE THIS JOB.			
TOTAL			\$299,866.31



Photograph Log - IPC, Jackson, Hinds County, Mississippi

DATE: 12/11 ORIENTATION: NW PHOTOGRAPHER: S. McKeeDESCRIPTION: Tank Trailer in Loading AreaDATE: 12/11 ORIENTATION: S PHOTOGRAPHER: S. McKeeDESCRIPTION: Loading Area

2 10 0030

Photograph Log - IPC, Jackson, Hinds County, Mississippi



DATE: 12/11 ORIENTATION: S PHOTOGRAPHER: J. McKee

DESCRIPTION: Secondary Containment made of cinder blocks for waste oil tanks



DATE: 12/11 ORIENTATION: N PHOTOGRAPHER: J. McKee

DESCRIPTION: Standing Water in Secondary Containment of Used Oil Storage tanks

2 10 0031

Photograph Log - IPC, Jackson, Hinds County, Mississippi



DATE: 12/11/98 ORIENTATION: N PHOTOGRAPHER: J. McKenna

DESCRIPTION: Unfenced portion of Western Side of Site - Office Bldg is the White Bldg



DATE: 12/11/98 ORIENTATION: NE PHOTOGRAPHER: J. McKenna

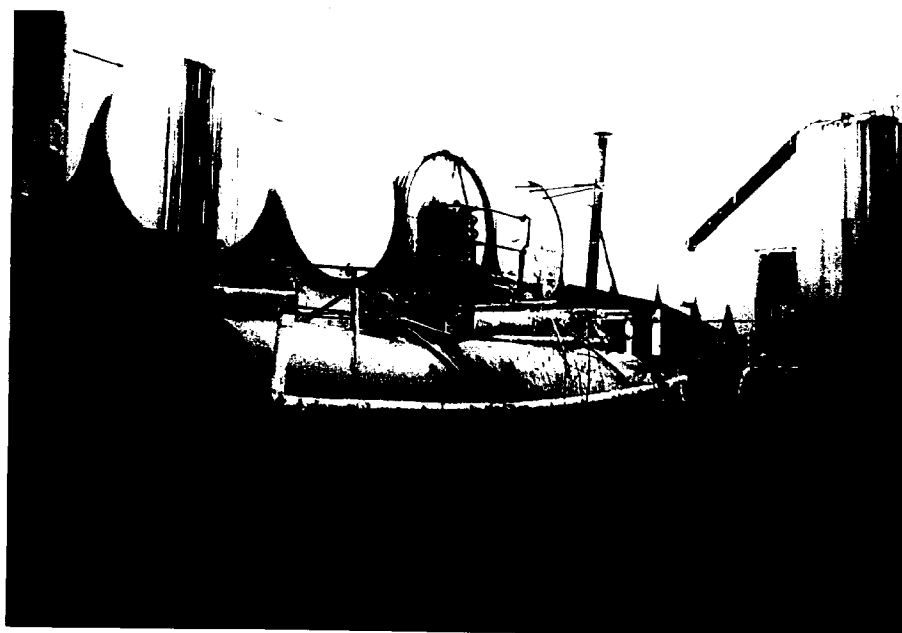
DESCRIPTION: Fenced area of Western Side of Site

Photograph Log - IPC, Jackson, Hinds County, Mississippi



DATE: 12/11/98 ORIENTATION: SW PHOTOGRAPHER: J. McKee

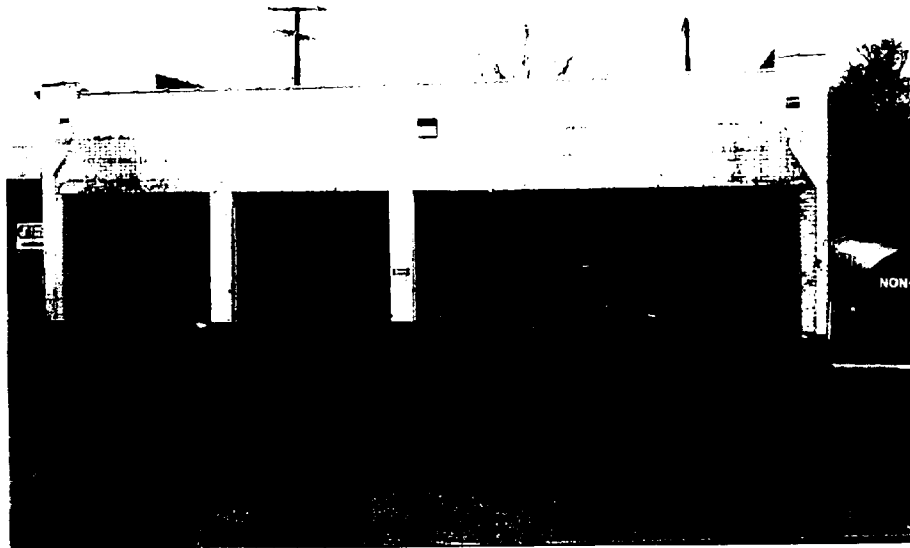
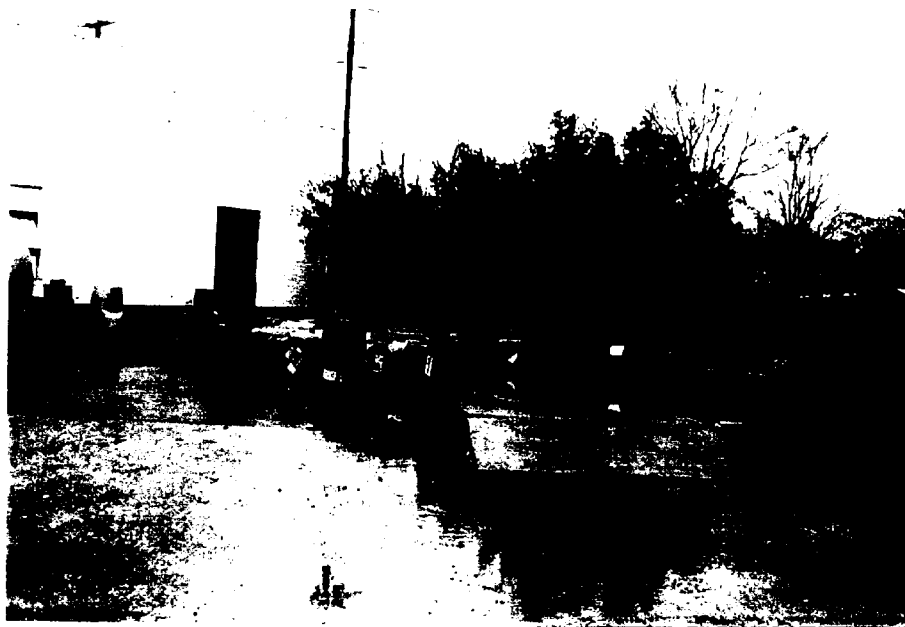
DESCRIPTION: Oil Storage Tank farm inside the property



DATE: 12/11/98 ORIENTATION: NW PHOTOGRAPHER: J. McKee

DESCRIPTION: Used & Rusted Oil Tank and Secondary Containment - Note Stains on Wall
Tan

Photograph Log - IPC, Jackson, Hinds County, Mississippi

DATE: 12/11 ORIENTATION: East PHOTOGRAPHER: J McKernanDESCRIPTION: Drum WarehouseDATE: 12/11 ORIENTATION: NE PHOTOGRAPHER: J McKernanDESCRIPTION: Empty Drum outside of Drum Warehouse

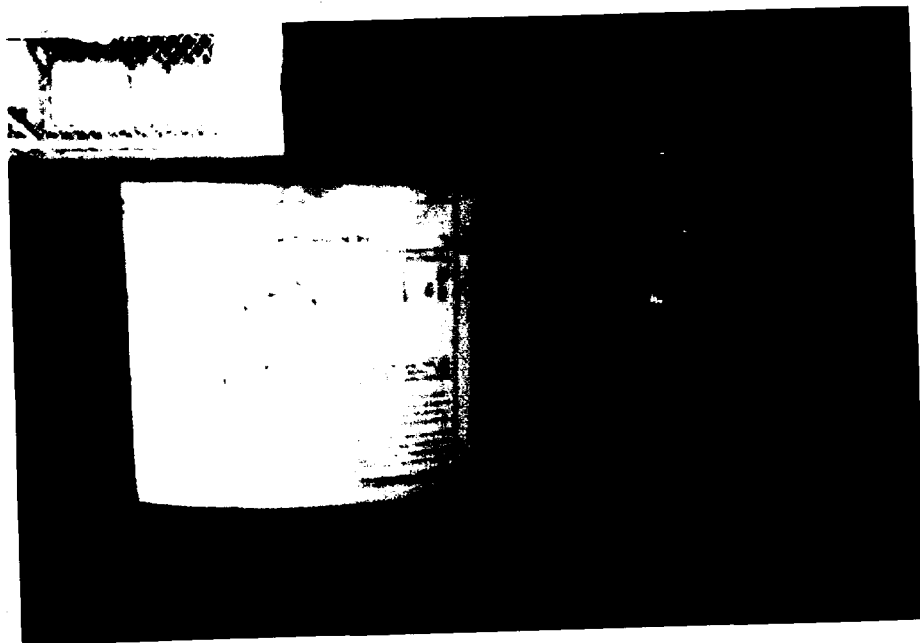
2 10 0034

Photograph Log - IPC, Jackson, Hinds County, Mississippi



DATE: 12/11 ORIENTATION: SW PHOTOGRAPHER: J. McKenna

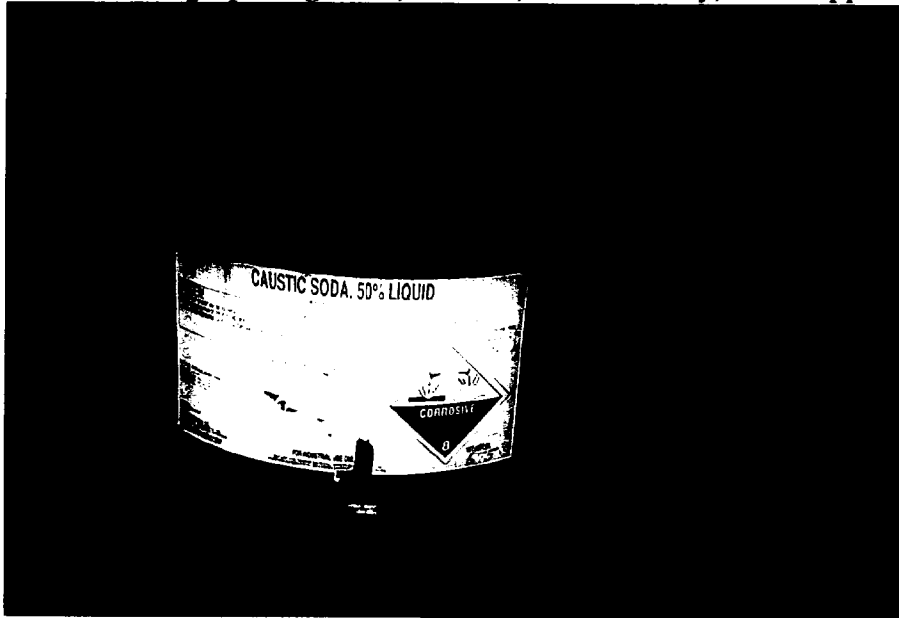
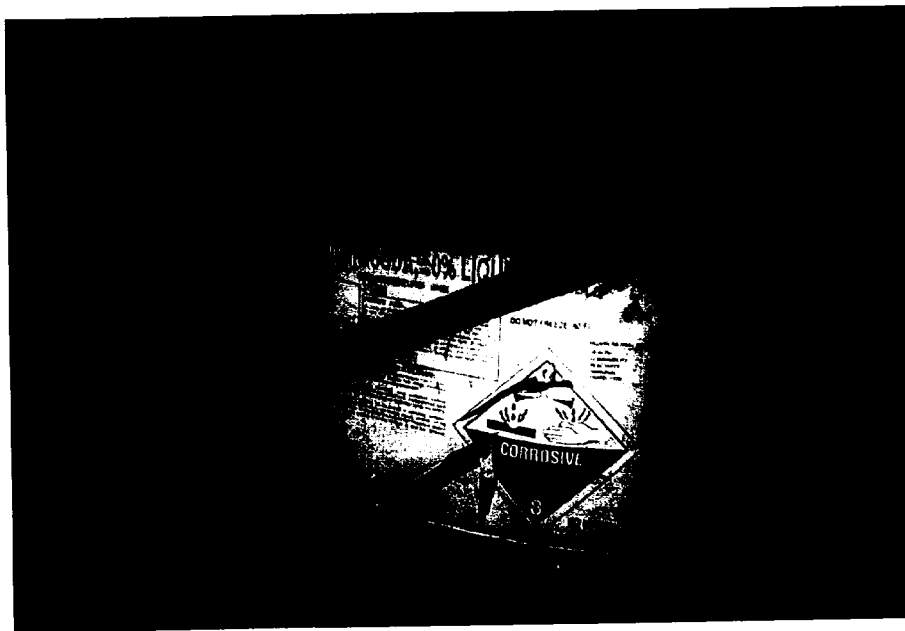
DESCRIPTION: Variety of Drums in Drum Warehouse



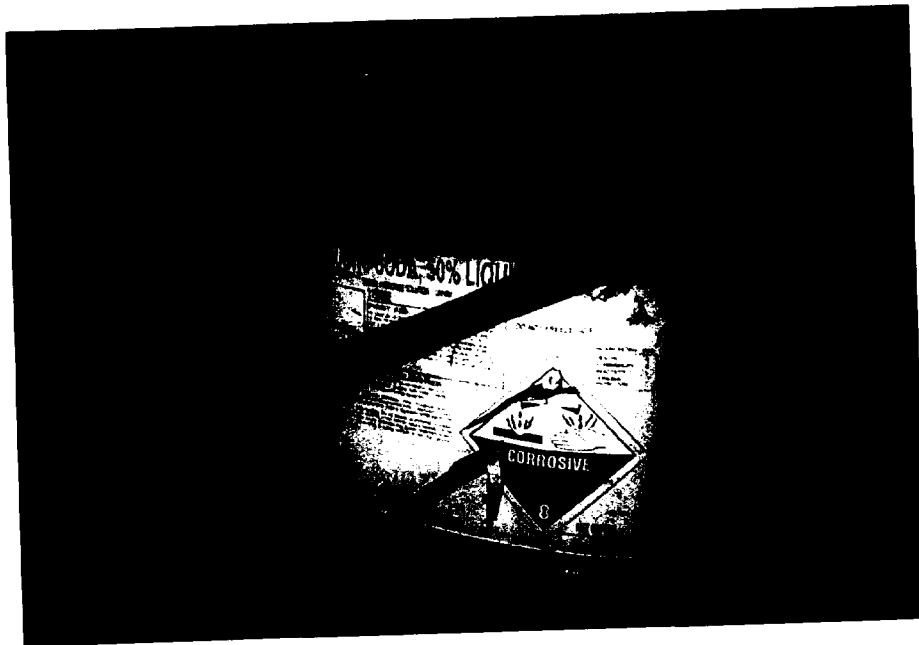
DATE: 12/11 ORIENTATION: South PHOTOGRAPHER: J. McKenna

DESCRIPTION: Drum with Solvent label in Drum warehouse

Photograph Log - IPC, Jackson, Hinds County, Mississippi

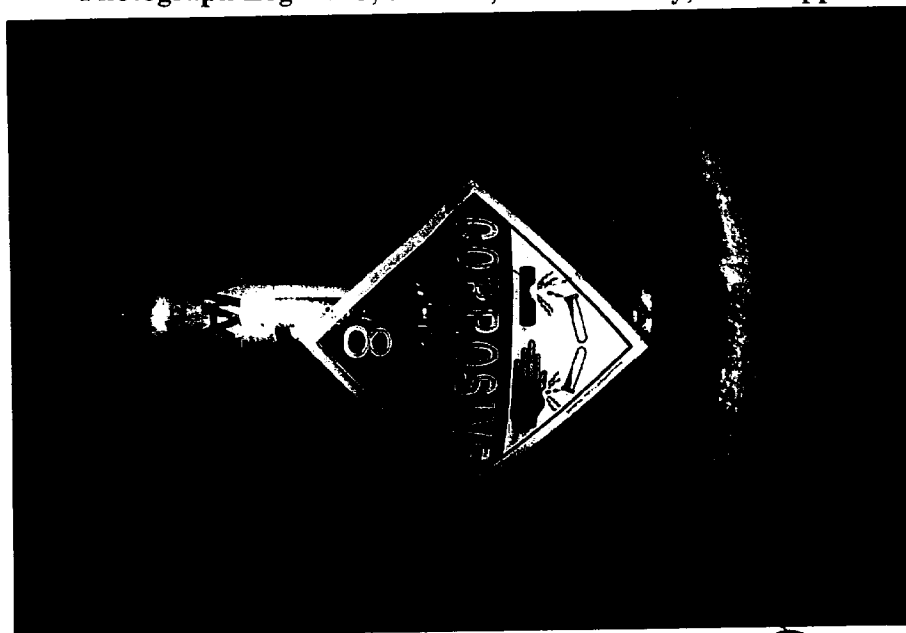
DATE: 12/11 ORIENTATION: Upright PHOTOGRAPHER: J. McKennaDESCRIPTION: Drum with Caustic Label in Drum WarehouseDATE: 12/11 ORIENTATION: East PHOTOGRAPHER: J. McKennaDESCRIPTION: Drum with Caustic Label in Drum Warehouse

Photograph Log - IPC, Jackson, Hinds County, Mississippi

DATE: 12/11 ORIENTATION: Upright PHOTOGRAPHER: J. McKinnonDESCRIPTION: Drum with Corrosive Label in Drum WarehouseDATE: 12/11 ORIENTATION: Flat PHOTOGRAPHER: J. McKinnonDESCRIPTION: Drum with Corrosive Label in Drum Warehouse

2 10 0037

Photograph Log - IPC, Jackson, Hinds County, Mississippi



DATE: Dec 11 ORIENTATION: In Drum WA PHOTOGRAPHER: J. McKenna

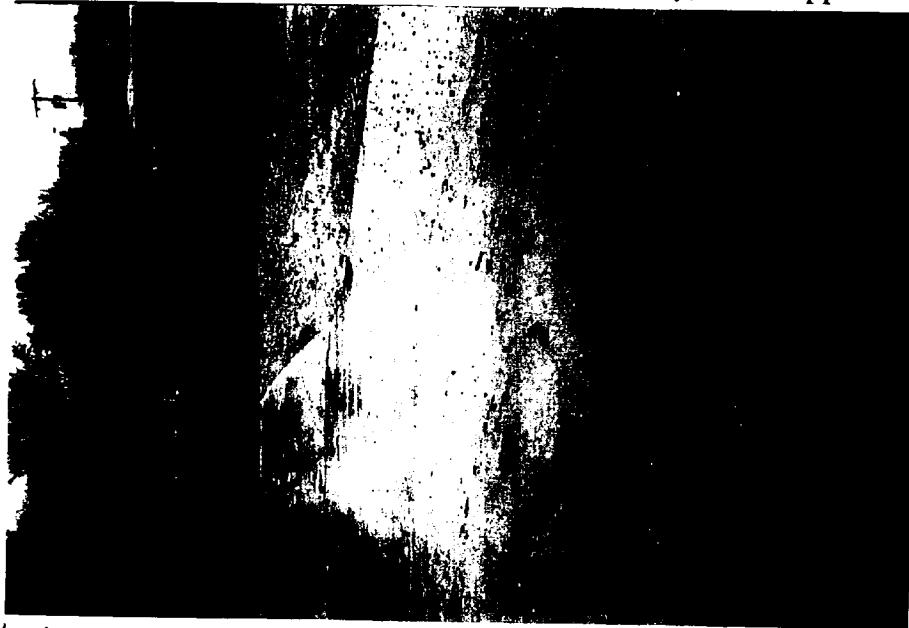
DESCRIPTION: Corrosive Over pack drum in Drum warehouse



DATE: 12/11 ORIENTATION: NE in WA PHOTOGRAPHER: J. McKenna

DESCRIPTION: Corrosive drum in NE corner of warehouse

Photograph Log - IPC, Jackson, Hinds County, Mississippi



DATE: 12/11/98 ORIENTATION: SW PHOTOGRAPHER: J. McKenna

DESCRIPTION: Onsite - Surface Water Drainage toward SW Corner $\approx 100'$



DATE: 12/11/98 ORIENTATION: N PHOTOGRAPHER: J. McKenna

DESCRIPTION: Surface Water Drains to the Street from the Site along this driveway

Note FBI Vehicle for Scale.

2 10 0039

Photograph Log - IPC, Jackson, Hinds County, Mississippi



DATE: 12/11/98 ORIENTATION: NW PHOTOGRAPHER: J. McKinn

DESCRIPTION: Terry Road - Runoff rolls onto road & flows east to storm drain \approx 100-120'



Flow \rightarrow to
Pearl River

DATE: 12/11/98 ORIENTATION: S PHOTOGRAPHER: J. McKinn

DESCRIPTION: Intermittent Stream flowing under Bridge on Terry Road at Storm Drain

2 10 0040

Photograph Log - IPC, Jackson, Hinds County, Mississippi



DATE: 12/11/98 ORIENTATION: N PHOTOGRAPHER: J. McKenna

DESCRIPTION: Standing Water within Secondary Containment.



DATE: 12/11/98 ORIENTATION: SW PHOTOGRAPHER: J. McKenna

DESCRIPTION: Tank near Site's Oil Water Separator

US ENVIRONMENTAL PROTECTION AGENCY
POLLUTION REPORT

Industrial Pollution Controls (IPC)
Jackson, Hinds Davis County, Mississippi
POLREP: 2

TO: Doug Lair, ERRB Branch Chief, Region 4
Michael Henderson, Region 4 Community Relations

FROM: John McKeown, OSC, ERRB, US EPA Region 4

DATE: March 9, 1999

Dates Covered: January 25, 1999 - March 9, 1999

I. SITE INFORMATION

Site No.: A4N1
Response Authority: CERCLA
NPL Status: No
State Notification: Yes (MDEQ)
Removal Assessment: START TDD # 04-9901-0001

PERSONNEL ON SITE

EPA 1 (John McKeown)
START 3 (Greg Branham, Jamey Laubenthal, Kevin Taylor)

WEATHER: Cool and clear with temperatures ranging from 70 degrees Fahrenheit for the daily highs to 40 degrees Fahrenheit for the daily lows. No precipitation was encountered.

II BACKGROUND INFORMATION

See Initial POLREP

III ACTIONS TAKEN

The objective of this POLREP period was to document the Removal Assessment at the IPC Site in Jackson, Mississippi. The objective of the assessment was to get most if not all of the

necessary Site information to adequately prepare an Action Memorandum for the Site. This would include basic Site information, inventory of drums and tanks, sampling of soils, selected drums and tanks and interviews with former Site personnel and oil and waste recycling facilities in the Jackson area.

January 25, 1999 - OSC arrives on-site at 1445 and meets Mr. Richard Montague (the bankruptcy attorney representing IPC) to obtain site access and all necessary keys. The START crew arrives and a quick Site tour is conducted. A 0700 start time is planned for January 26, 1999 and the Site is secured.

January 26, 1999 - OSC and START personnel tour the building onsite and open the garage door to the main office building to gain easy access. START purchased a new set of keys for the gate and the garage door. An inventory of the onsite drums was conducted (numbering drums with contents and labeling empty drums with an "E"). The results of the inventory indicate approximately 240 drums onsite with some contents and approximately 150 empty drums. The onsite tanks were inspected for sampling access and estimated volume. Most of the tanks were 80-100% capacity. Several tanks could not be reached safely with equipment on-hand. A laboratory was discovered inside the main building which contained numerous sample containers with oil contents but also contained gallon jugs of acetone, xylene and toluene. Six representative drums were sampled to provide data on the full spectrum of waste contained in drums on-site. Two of the drums peaked the PID scales for volatile organic compounds. Ken Whitten of MDEQ arrived on-site to receive an update on Site activities. Approximately 1630, the Site was secured for the evening.

January 27, 1999 - OSC and START arrive on-site at 0700. OSC and Greg Branham walk around the Site to identify potential locations for surface and subsurface soil sampling. A total of twelve samples were collected. Seven surface and five subsurface soil samples. Three samples were collected under the North edge of the secondary containment wall along the eastern portion of the Site near the oil/water separators. The soil had a very strong petroleum odor and appearance. The four worst samples will be analyzed for full scan and the rest for total petroleum hydrocarbons. Les McMullen of Safety Kleen and Richard Montague arrived at the site to talk about the waste oil with the OSC. Safety Kleen will split samples with EPA to make a determination on whether or not they can accept the oil in the tanks. Safety Kleen will also be interested in any future disposal at the Site. The crew completed the soil sampling and broke for lunch.

During the afternoon hours, the OSC and START crew identified oil tanks which could be sampled safely and which would provide the best example of the types of oils and the oil quality in the on-site tanks. The total number of samples was upgraded from 4 to 8 samples. Duplicate oil samples were collected for Safety Kleen of Jackson for analysis determining the usability of the onsite product. Three of the horizontal cradle tanks were sampled (2 storage tanks and the heater tanks) and two of the vertical "finished product" tanks. Sludge samples were collected from the bottom of the cradle tanks. Clark Thomas, of Environmental & Petroleum Consulting, Inc, (a consultant who may be working for Richard Montague in the future) stopped by to talk about the Site. Ken Whitten of MDEQ stopped by to visit the Site for an update of progress. All sampling

was completed and the Site was secured.

January 28, 1999 - OSC and START crew arrive on-site and immediately start all necessary paperwork to ship samples. The HAZCAT of the drum samples was conducted. HAZCAT results revealed a wide variety of waste onsite. PH ranged from 0-7 and some of the samples were flammable. During the morning hours, Richard Montague brought Steve Pitre (the former plant manager) to provide a very informative tour. During the tour Steve explained the use of the tanks, the processes on-site, located the oil water separator, two underground storage tanks, discussed the buildup of oily sludge under the cradle tanks and discussed the laboratory sampling process. During the tour, Steve also mentioned that adding spent solvents to the waste oil tanks was a common practice during the years of operation. Apparently the volumes of solvents added to the oil did not effect its composition significantly. START and OSC completed work on the Site and secured the facility.

IV DIFFICULTIES ENCOUNTERED

Several difficulties were encountered during the week long project. These include the following:

- Difficulty in obtaining subsurface soil samples due to a combination of gravel, asphalt and concrete in the soil. Deepest samples were collected at about 3-5 feet bgs.
- Accessing certain tanks for volume estimates and sampling was difficult if not impossible with equipment on hand and inadequate access routes (i.e. no catwalks)
- Unable to find (3) underground storage tanks located within the secondary containment due to standing water with emulsified oil floating on top. These will need to be verified once this oil is contained.
- Building access is through a small hole along the southern edge of the building. Will need keys to open the door at a later date.

V ANALYTICAL RESULTS

The data from the samples collected during the week of January 25th was delivered to EPA on March 1, 1999. The sampling results are listed below:

<u>Drum Sampling</u>	<u>Soil Sampling</u>	<u>Tank Sampling</u>
8,900 ppm xylene	9.6 ppm anthracene	5,600-19,800 BTU
10,000 ppm trimethylbenzene.	130 ppb xylene	134->212 Ignitability
1,500 ppm phenanthrene	2.3 bis-2-(ethylhexyl)phthalate	1,200-4,400 Chloride
1,200 ppm 2-methyl naphthalene.	280 ppm diesel range organics	13-40 Flouride
1,100 ppm n-butylbenzene		

These results indicate that some of the 240 drums onsite certainly contain hazardous substances.

The soil sampling collected from the surface soils were analyzed for the full TCL-TAL, while the subsurface soil samples were analyzed for total petroleum hydrocarbons. The analytical results from this sampling did indicate the presence of hazardous substances, but not at the levels anticipated. Also, the likely source of the contaminants appears to be the oil in the tanks. The tanks were analyzed for characteristics which would provide information to potential vendors who may accept the oil without a fee or for a minimal fee.

VI CONCLUSIONS

The week spent onsite collecting samples and talking with Steve Pitre provided a great deal of additional information on the Site history and current status. A variety of potential and existing hazards were identified on-site. These include over 240 drums in various conditions which contain hazardous materials ranging from corrosive to toxic in nature, an on-site laboratory with an assortment of chemicals in one gallon jugs including VOCs and acids, large volumes of waste oils and fuels contained in tanks which were mixed with solvents from the facility's parts washing operation, very large volumes of contaminated waste water, and finally an unknown volume of contaminated soil. The analytical data from soil sampling did not indicate a very high level of contamination, however, the saturated soils under the tanks could not be sampled during the removal assessment due to standing water within the containment area. This area should have much higher levels of contamination than the areas sampled during the Removal Assessment.

VII RECOMMENDATION

The IPC Site is located in downtown Jackson, Mississippi. The site is in very poor condition and is abandoned. Access to the site is not restricted in anyway (a fence exists, but has many gaps and holes) and very real hazards exist on-site. Acute hazards include drums in poor condition which contain toxic and corrosive substances, a laboratory which contains various types of chemicals, waste oil mixed with solvents and waste water in tanks which are in poor condition and could easily rupture and a variety of physical hazards from poorly maintained structures. A release to groundwater is likely and a release to surface water has happened at the facility in the past. The combination of the site's location, condition, waste inventory and history make the IPC facility a good candidate for a time-critical removal under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA).

VIII COSTS

As of January 31, 1999:
EPA - to be determined
START - \$7,590.41

Site:

INDUSTRIAL POLLUTION CONTROL

10 6 0001

Document Description:

Break: 10. 6

Cross-Reference: Order, Before the Mississippi Commission On Environmental Quality: Mississippi Commission On Environmental Quality, Complainant, v. Industrial Pollution Control, Jackson, Mississippi, Respondent. Order No. 2521 - 93. (May 19, 1993)

Is (Are) Filed under:

[Filed and cited as Reference 1 to entry 1 in 2.10 REMOVAL RESPONSE - Pollution Reports (POLREPs)].

Site:

INDUSTRIAL POLLUTION CONTROL

10 6 0002

Document Description:

Break: 10. 6

Cross-Reference: Agreed Order, Before the Mississippi Commission On Environmental Quality:
Mississippi Commission On Environmental Quality, Complainant, v. Industrial Pollution Control, Jackson,
Mississippi, Respondent. Order No. 2736 - 94. (December 29, 1993)

Is (Are) Filed under:

[Filed and cited as Reference 2 to entry 1 in 2.10 REMOVAL RESPONSE - Pollution Reports
(POLREPs)].

Site:

INDUSTRIAL POLLUTION CONTROL

10 6 0003

Document Description:

Break: 10. 6

Cross-Reference: Order, Before the Mississippi Commission On Environmental Quality: Mississippi Commission On Environmental Quality, Complainant, v. Industrial Pollution Control, Jackson, Mississippi, Respondent. Order No. 3441 - 97. (May 09, 1997)

Is (Are) Filed under:

[Filed and cited as Reference 4 to entry 1 in 2.10 REMOVAL RESPONSE - Pollution Reports (POLREPs)].

Site:

INDUSTRIAL POLLUTION CONTROL 7000

10 6 0004

Document Description:

Break: 10. 6

Cross-Reference: Order Amendment, Before the Mississippi Commission On Environmental Quality:
Mississippi Commission On Environmental Quality, Complainant, v. Industrial Pollution Control, Jackson,
Mississippi, Respondent. Order No. 3441 - 97. (June 05, 1997)

Is (Are) Filed under:

[Filed and cited as Reference 3 to entry 1 in 2.10 REMOVAL RESPONSE - Pollution Reports
(POLREPs)].

United States Environmental Protection Agency
 Region 4: AL, FL, GA, KY, MS, NC, SC, TN
 Office of External Affairs

Sam Nunn Atlanta Federal Center
 61 Forsyth St. SW
 Atlanta, GA 30303-3104



ENVIRONMENTAL NEWS

PHONE: (404) 562-8327

FAX: (404) 562-8335

**THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
 REGION 4, ANNOUNCES THE PUBLIC AVAILABILITY OF THE
 REMOVAL ADMINISTRATIVE RECORD FILE FOR THE INDUSTRIAL
 POLLUTION CONTROL (IPC) SITE, JACKSON, HINDS COUNTY, MS**

The United States Environmental Protection Agency (USEPA), Region 4, announces the availability for public review of documents comprising the Industrial Pollution Control (IPC) Removal Action in the Margaret Walker Alexander Library, Jackson, Mississippi. EPA seeks to inform the public of the availability of the administrative record file at this informational repository and to encourage interested citizens to comment on documents as they are placed in the administrative record file.

The administrative record file include documents that form the basis for the selection of the removal action for the Industrial Pollution Control (IPC) Removal Site. Documents now in the record file include, but are not limited to, preliminary assessment and inspection reports, test results, and the Action Memorandum.

The administrative record file is available for public review during normal business hours at the following Jackson, Mississippi and Atlanta, Georgia locations:

Ms. Shelia O'Flaherty
 Margaret Walker Alexander Library
 2525 Robinson Road
 Jackson, Mississippi 39209

Ms. Debbie Jourdan
 USEPA, Region 4, The Sam Nunn Federal Center
 61 Forsyth Street, Southwest - 11th Floor
 Atlanta, Georgia 30303-3104

A public comment period will extend thirty (30) days from July 23, 1999 to August 22, 1999. At the end of the thirty (30) days comment period, a written response to all pertinent comments will be prepared in a responsiveness summary and will be placed in the record file. Written comment on the record file should be sent to:

John McKeown, Federal On-Scene Coordinator
 USEPA - Region 4 - ERRB (Superfund Program)
 The Sam Nunn- Atlanta Federal Center - 11th Floor
 61 Forsyth Street, Southwest
 Atlanta, Fulton County, Georgia 30303 - 3104

The IPC Site is located at 810 Poindexter Street, north of Interstate 20 and west of Interstate 55, between Terry Road and Poindexter Street approximately a quarter mile east of Jackson State University.

-0-

July 16, 1999

John McKeown, OSC, (404) 562 - 8767

Michael Henderson, CIC, (404) 562 - 8724 or 1 - 800 - 564 - 7577

Carl Terry, Press and Media Relations, (404) 562 - 8325

Site:

INDUSTRIAL POLLUTION CONTROL

17 4 0001

Document Description:

Break: 17. 4

Cross-Reference: Aerial photograph of the vicinity of Industrial Pollution Control, Inc., Jackson, Hinds County, Mississippi. (DATE UNKNOWN)

Is (Are) Filed under:

[Filed and cited as an attachment to entry 1 in 2.1 REMOVAL RESPONSE - Correspondence].

Site:

INDUSTRIAL POLLUTION CONTROL

21577

17 4 0002

Document Description:

Break: 17. 4

Cross-Reference: Ownership Map, Hinds County, Mississippi, Northeast Quarter of Section 9. (DATE UNKNOWN)

Is (Are) Filed under:

[Filed and cited as an attachment to entry 1 in 2.1 REMOVAL RESPONSE - Correspondence].

Site:

INDUSTRIAL POLLUTION CONTROL

17 4 0003

Document Description:

Break: 17. 4

Cross-Reference: Photographs taken to document the December 11, 1998, site investigation conducted at the Industrial Pollution Control Site, Jackson, Hinds County, Mississippi. (December 11, 1998)

Is (Are) Filed under:

[Filed and cited as an attachment to entry 1 in 2.10 REMOVAL RESPONSE - Pollution Reports (POLREPs)].